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Part II

Environmental Protection Agency

40 CFR Part 300
National Oil and Hazardous Substances Pollution Contingency Plan; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[SWH-FRL 2671-8]

National Oil and Hazardous Substances Pollution Contingency Plan

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: Pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and Executive Order 12316, the Environmental Protection Agency (EPA) is proposing revisions to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This revision of the NCP reflects experience gained over the past two years since the NCP was last revised. The purpose of the revisions is to streamline the response mechanisms; to ensure prompt, cost-effective response; to respond to issues raised in the litigation pertaining to the current NCP; and to clarify responsibilities and authorities contained in the NCP. CERCLA provides that actions taken in response to releases of hazardous substances shall be in accordance with the NCP. Section 311 of the Clean Water Act (CWA) provides that actions taken to remove oil discharges shall, to the greatest extent possible, be in accordance with the NCP. The revised NCP, proposed today, shall be applicable to response actions taken pursuant to CERCLA and section 311 of the CWA.

In addition, the EPA is proposing a policy concerning the extent to which response actions taken pursuant to CERCLA will be consistent with other pertinent Federal and State environmental and public health standards.

DATES: Comments on § 300.66(b)(4) only may be submitted on or before March 14, 1985. Comments on the remainder of the revisions to the NCP may be submitted on or before April 15, 1985.

ADDRESSES: The public docket for the NCP is located in Room S398, U.S. Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, and is available for viewing from 9:00 a.m. to 4:00 p.m. Monday through Friday, excluding holidays.

FOR FURTHER INFORMATION CONTACT: Douglas Cohen, Office of Emergency and Remedial Response (WH-548D), U.S. Environmental Protection Agency, 401 M Street SW., Washington, D.C. 20460, (800) 424-9346, or in the Washington, D.C. area (202) 382-3000.

SUPPLEMENTARY INFORMATION: The contents of today's preamble are listed in the following outline:

I. Introduction

Pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Pub. L. 96-510 ("CERCLA" or "the Act") and Executive Order 12316, the Environmental Protection Agency ("EPA" or "the Agency") is proposing revisions to the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP" or "the Plan"). Revisions to the NCP were last promulgated on July 16, 1982 (47 FR 31180). In today's revision, the Agency has reprinted Subparts A-G and Appendix A of the NCP in their entirety for the reader's convenience. However, comment is only requested on new or changed parts of the Plan as indicated. The Agency has not reprinted Subpart H. Changes in Subpart H are so indicated. In addition, the Agency is not reprinting Appendix B which is the National Priorities List. The Agency is also proposing a policy which addresses in detail the extent to which response actions taken pursuant to CERCLA should be consistent with pertinent Federal or State environmental or public health standards. This policy can be found as a appendix to this Preamble and is entitled "Draft Policy on CERCLA Compliance With the Requirements of Other Environmental Laws". Finally, EPA is providing a shortened comment period only for § 300.66(b)4). The comment period for this section only will be 30 days.

In developing the revisions proposed today, the Agency reviewed and evaluated program operations under the current NCP to identify areas requiring clarification, modification or streamlining based on the early years of program experience. Many of the changes to subpart F, pertaining to CERCLA response operations are a result of this evaluation. In addition, most of the proposed revisions to the other subparts were recommended by the National Response Team (NRT). The 12 member Federal agencies of the NRT undertook and comprehensive review of the national response mechanism and its operations (included in Subparts B, C and D of the Plan) as well as oil and hazardous substances response operations under Subparts E and F and made many recommendations to clarify and streamline the Plan. Finally, some of the revisions reflect agreements reached in settlement of a lawsuit brought by the Environmental Defense Fund (EDE) and the State of New Jersey (*EDF* v. *US. EPA*, No. 82-2234, D.C. Cir., Febraury 1, 1984; *State of New Jersey* v. U.S. EPA No. 82-2238, D.C. Cir., Feb. 1, 1984.) The Agency agreed to the following in the settlement.

- EPA will propose amendments to the NCP to require that (1) relevant quantitative health and environmental standards and criteria developed by EPA under other programs be used in determining the extent of remedy, and (2) if such standard or criteria are substantially adjusted (e.g., for risk level or exposure factors), then the lead agency must explain the basis for this adjustment.
- EPA will propose amendments to the NCP to allow facilities presently owned by the United States or its agencies to be included in future revisions to the National Priorities List (NPL).
- EPA will propose amendments to the NCP to (a) require development of Community Relations plans for all Fund-financed response actions, (b) require public review of feasibility studies for all Fund-financed response measures and (c) provide comparable public participation for private-party response measures taken pursuant to enforcement actions.
- EPA will promulgate a rule addressing the issue of whether response activities must comply with other Federal, State or local environmental laws.

The proposed NCP revision address all of the settlement agreement provisions.

Section II of this preamble discusses the major proposed revisions to the NCP. All of the major revisions to this Plan are in Subpart F. These revisions pertain to hazardous substance response activities under CERCLA. Section III of the preamble discusses other modifications made to each subpart of the Plan, including Subpart F. In developing the revisions to the Plan, the Agency did not believe it was necessary to modify the basic formulation of the Plan or the national response structure. EPA has left the response structure intact so that the proven national and regional response mechanisms may continue to be used for

response operations under CERCLA and the CWA. The Plan continues to be structured as follows:

Subpart A—definitions
Subparts B, C, D—Assignment of responsibilities under the NCP, national response organization and response planning
Subpart E—Oil Removal
Subpart F—Hazardous Substance Response
Subpart G—*National Resource Trustees*
Subpart H—Use of Dispersants

II. Major Revisions

The major revisions to the Plan are all in subpart F. The first revision restructures the criteria for undertaking removal action under CERCLA. The second streamlines the remedial response process and more specifically identifies the level of clean up to be achieved during CERCLA cleanups. The third modifies and expands the rules pertaining to listing and deleting of releases on the National Priorities List (NPL). The fourth emphasizes the use of alternative and innovative technology, and recycling or reuse as alternatives to conventional technology and practices. The last clarifies and elaborates on roles and responsibilities of non-lead agency parties, including responsible parties, under CERCLA.

CERCLA authorizes two general types of response to hazardous substance releases: Removal and remedial action. Removal actions generally are actions to clean up or remove hazardous substances or pollutants or contaminants from the environment. Remedial action includes measures consistent with permanent remedy taken alone or in addition to removal action to prevent or minimize the release of hazardous substances or pollutants or contaminants.

A. Removal Action

Discussion

Section 104 of CERCLA authorizes the performance of removal activities, as defined in section 101(23) of the Act, whenever there is a release or substantial threat of release of a hazardous substance, or of any pollutant or contaminant which may present an imminent and substantial danger to public health or welfare. The term "removal" is broadly defined in section 101(23) to include a wide variety of activities. The major statutory limitation on removal activities is set forth in section 104(c)(1), which provides that removal activities [other than activities described in section 104(b)] shall not continue after $1,000,000 has been obligated or 6 months has elapsed from date of initial response, unless certain findings are made. The effect of this statutory provision is to limit removal activities to short-term, relatively inexpensive activities unless there is an emergency situation which presents an immediate risk to public health, welfare, or the environment.

For purposes of the current Plan, EPA established two categories of situations in which removal activities were authorized. First, the lead agency is authorized under § 300.65 to conduct "immediate removal" activities when it determines that action is necessary to prevent or mitigate an immediate and significant risk of harm to human life or health or to the environment. Several examples of situations which would pose such risks are included in this section. The authority to undertake immediate removal activities is not dependent on whether the release is included on the NPL. Second, under § 300.67, the lead agency is authorized to undertake "planned removal" actions when it determines either that continuation of an immediate removal will result in a substantial cost savings, or, that the public or environment will be at risk from exposure to hazardous substances, if response is delayed at a release not on the NPL. Again, as with § 300.65, the Plan cites examples of factors the Agency will use in determining whether a planned removal is warranted. Approval of planned removal activities is conditioned upon, among other things, assurances that the affected State would share the costs of the activity; no such State cost-share is required for immediate removal activities.

The Agency had believed that the distinction between immediate and planned removal would result in better management of the Fund. In addition, the Agency believed that under the existing removal provisions, the lead agency would have the flexibility to ensure that Fund money would be used effectively to protect public health and the environment.

Based on its experience with the removal program over the past two years, EPA believes that the existing removal provisions tend to complicate and interfere with expeditious responses to situations which present threats to public health or the environment, and do not provide significant Fund-management benefits.

First, the distinction between sites that are eligible for immediate removal action and those situations which are eligible only for planned removal treatment is often difficult to define in practice. Although some situations are obviously within the immediate removal category, for others the question is more difficult. Time spent in properly classifying actions, and documenting the "immediacy" and "significance" of the risk to health or the environment in immediate removals can delay necessary response and consume significant amounts of staff and decisionmakers' energies. This not only may delay necessary response, but can also result in an unproductive expenditure of Fund resources.

Second, the present removal provisions in many cases have not provided an effective mechanism for addressing threats which are not "immediate and significant," especially at sites which are neither listed nor eligible for listing on the NPL. Although the Agency had anticipated that the planned removal mechanism would provide an effective means of dealing with such situations, this has often not been the case. While some planned removal actions have been taken expeditiously, the administrative requirements imposed on planned removals, especially the requirement that the affected State provide a cost-share, have delayed some responses, and have the potential for creating such delay in the future. Perhaps more significantly, until recently, few planned removal activities have been undertaken at all, perhaps in part because of the same administrative and funding complications. The failure to undertake removal action, or the undue delay in undertaking such action at sites can result in an increase in the problem posed by a site, which, in turn, can result in an increase in the cost of response actions which may be required at a later date.

Third, the existing removal provisions do not provide the Fund management benefits EPA had expected. To the extent that necessary removal efforts are delayed and site conditions deteriorate, the present provisions may lead to a long-term increase in expenditures from the Fund.

Because of these concerns with the removal authorities in the current Plan, EPA is proposing to eliminate the distinction between immediate and planned removals and to establish a single standard which must be satisfied before removal activity can be authorized under the Plan. The standard would apply to all releases and threatened releases without regard to whether the site was included on the NPL. The proposed revisions are described below.

Proposed § 300.65(b)(1) would authorize the lead agency to undertake removal action where there was a release or threat of release of (1) a hazardous substance; or, (2) of a

pollutant or contaminant (which is defined for purposes of Subpart F so as to incorporate the criteria of 104(a) concerning imminent and substantial danger), where there was a threat to public health, welfare, or the environment, whether or not the release had been included on the NPL. Section 300.65(b)(2) includes a list of the type of factors which would be considered in determining that a threat to public health, welfare or the environment exists.

This single, simplified standard would replace the various distinct standards which now must be applied by the lead agency in determining whether a short-term, relatively low cost action should be undertaken as an "immediate removal", a "planned removal" or an "initial remedial measure (IRM)." The standard is intended to be broad enough to authorize removal action in any of the circumstances which can now be addressed under any of these authorities in the existing Plan.

Under the proposed removal provisions, no removal activities, except removals at sites owned by the State at the time of disposal (50 percent cost-sharing sites), would be subject to administrative restrictions (including State cost-sharing requirements) currently imposed upon planned removals and IRMs. Elimination of these requirements is not inconsistent with the statute. Although the Agency has the discretion to require cost-sharing for removal actions, section 104(c)(3) generally *requires* such cost-sharing only with respect to *remedial* actions. In addition, with respect to activities now addressed under the IRM authority, there is nothing in CERCLA which limits the taking of removal activities at sites where further remedial activity is contemplated. In fact, the definition of "remedy" in section 101(24) of CERCLA indicates that remedial activities may be taken in addition to removal actions in the event of a release.

EPA does not expect that the revision of the removal authority will result in any significant increase in the type of activities which are now being routinely implemented under the removal authority.

Agency experience has indicated that certain types of response actions are, as a general rule, appropriately conducted as part of a removal action. Based on this experience, EPA proposes to specify, in § 300.65(c), particular types of actions that are appropriate removal responses to commonly encountered situations. Specification of situations commonly encountered at removal sites and appropriate responses to such situations, is not intended to limit the lead agency from addressing other types of situations under its removal authority, or from implementing different responses to any of the listed situations, or from deferring response action to other appropriate Federal or State enforcement or response authorities. However, EPA believes that specification of appropriate response activities will streamline the process of selecting and implementing removal activities by among other things, helping to limit evaluations to determine the appropriate response. EPA also believes that specification of appropriate responses will assist OSC's in recommending actions (or selecting actions to the extent they have been delegated authority) and the reviewing official in selecting appropriate responses. Finally, listing of such general responses will also help focus discussion between the Agency and potentially responsible parties who may have some ability or interest in implementing response measures.

As mandated by section 104(c)(1) of CERCLA, § 300.65(b)(3) of the proposed revision provides that all removal action will be terminated after 6 months have elapsed from the date of initial response at the site, or $1 million has been obligated, unless there is an immediate risk at the site, continued response actions are immediately required to address an emergency, and such assistance will not otherwise be provided in a timely manner. Section 300.65(b)(4) provides that the lead agency shall make the 6 month or $1 million determination at the earliest possible time. This limitation on removal actions was also imposed on both immediate and planned removals in the existing NCP.

The above discussed removal provisions in proposed 300.65 apply only to removals undertaken pursuant to section 104(a) of CERCLA. Activities authorized by 104(b) of CERCLA, while included within the statutory definition of removals, are subject to different requirements. Section 104(b) activities include investigations, monitoring, surveys, testing, and planning, legal, fiscal, economic, engineering, architectural or other studies. In particular, 104(b) actions may be taken whenever the criteria of 104(b) are met. In addition, 104(b) activities are not subject to the limitations of 104(c)(1).

Finally, § 300.65 (f) and (g) address the issue of CERCLA removal actions compliance with the requirements of other public health and environmental laws.

Section 300.65(f) provides that removal actions shall, to the greatest extent practicable considering the exigencies of the circumstances, attain or exceed applicable or relevant Federal, public health or environmental standards. Federal criteria guidance and advisories and State standards also should be considered in formulating the removal action. This requires the OSC to attempt to *use* those requirements where appropriate. However, because removal actions often involve situations requiring expeditious action to protect public health, welfare, and the environment, it may not always be feasible to fully meet these standards and criteria, guidance or advisories. In those circumstances where it is necessary to deviate from applicable or relevant standards or criteria, guidance or advisories, the decision documents, OSC report, or subsequent documents should specify the reasons for these deviations.

Section 300.65(g) requires permits or authorization for the off-site storage treatment or disposal of hazardous substances. In addition, disposal of the hazardous substances must be in compliance with all applicable and relevant Federal public health and environmental standards.

B. Remedial Response

Section 300.68 of the current NCP provides methods and criteria for determining the appropriate extent of remedial action. These provisions are organized to reflect the normal sequence for taking remedial action at a site, including discussion of how to plan remedial actions, how to array alternatives, and how to select the cost-effective alternative from among these alternatives.

EPA's experience with the remedial progam has shown that the basic remedial response structure of the current Plan works. This proposal, therefore, retains that basic structure, but makes a number of changes within it. In general, these changes include amendments designed to streamline the process, and changes reflecting current Agency practices and policies.

The most significant changes are discussed in the following section, "Overview of Changes." A discussion of "Specific Changes" follows which details how these significant changes fit within the remedial response structure, and explains the additional proposed amendments.

Overview of Changes

Section 300.68 of the NCP currently authorizes phased remedial actions. Specifically, the existing Plan provides for IRMs to stabilize conditions at the site and to mitigate the immediate public

health or environmental threat. Subsequent remedial actions are then classified as either "source control" or "off-site" remedial action. Each of these classifications contains different criteria for triggering and carrying out remedial actions.

These classifications are largely eliminated in this proposal, in favor of a more straightforward approach. First, the proposal eliminates IRMs as a distinct category. As discussed earlier, EPA is proposing amendments designed to eliminate certain restrictions for taking removal actions. With that added flexibility, IRMs should no longer be necessary; that is, removal actions will be able to address actions that normally should begin prior to initiating longer-term remedial responses. A possible exception are removal actions that cannot be completed within 6 months or $1 million dollars, as required by section 104(c)(3) of the statute. To the extent an immediate threat remains, those removal actions could be continued under the statutory exception allowing waiver of these limitations. If no immediate threat remained, continued response would appropriately be addressed by a remedial action.

Similarly, the proposal eliminates the formal distinctions between "source control" and "off-site" actions since the appropriate response to either type of problem is often the same. The Plan will still refer to source control measures and "management of migration" actions, but will not attempt to categorize the response actions that are appropriate to respond to each classification.

The proposed changes introduce the concept of "operable units." An operable unit is a discrete response measure that is consistent with a permanent remedy, but is not the permanent remedy in and of itself. This change codifies the practice of phasing remedial action at sites that present complex cleanup problems. For example, it is often appropriate first to conduct a surface cleanup of a site, and then, after additional analysis of more complex hydrogeological factors, to select and implement remedial measures addressing ground water contamination. Some of the more extensive actions now addressed under the current IRM authority may be addressed as preliminary "operable units."

As discussed earlier in this preamble, the Agency agreed to address in this proposed rulemaking the extent to which response actions are required to comply with other Federal, State and local laws. Several changes in section 300.68 reflect the draft policy EPA has developed to address this issue. The proposed rule is discussed in greater detail in an appendix to this document, entitled "Draft Policy on CERCLA Compliance With the Requirements of Other Environmental Laws."

As part of the development of a policy on compliance with other environmental laws, the Agency recognized that some potential CERCLA actions may more appropriately be taken under other environmental laws. Therefore, changes in the scoping and analysis sections allow the consideratiuon of the extent to which response or enforcement mechanisms under other Federal or State laws may adequately address the problem.

EPA has concluded that CERCLA cleanups need not comply with other environmental standards, as a matter of law, but that as a matter of sound practice, they should, except in certain circumstances. CERCLA contains criteria for responding to releases that may differ sharply from the considerations underlying other regulatory programs. For example, another environmental statute might require that standards be set at a level without regard to costs, while CERCLA requires that the selected Fund-financed remedial alternative take into account Fund-balancing cost considerations. As another example, extensive and potentially protracted permitting procedures under an environmental statute could impede rapid cleanups at CERCLA sites.

Nonetheless, other environmental requirements often provide critical guidance in determining the appropriate level of cleanup at a CERCLA site, directly or indirectly. Directly, an environmental regulation might define the level of protection that is "adequate" to protect health, welfare or the environment, which is a necessary element of determining the appropriate level of cleanup under CERCLA. Indirectly, an environmental criterion, although not specifically applicable to the activity at a CERCLA site, might provide useful information about the level of risk presented by exposure to known quantities of hazardous substances, or on appropriate treatment technologies.

This proposal attempts to reconcile these sometimes competing concerns, by providing that EPA will attain the substantive provisions of other Federal public health and environmental standards except in certain circumstances. These circumstances are designed to address situations when other environmental requirements are likely to conflict with CERCLA's goals. The proposal divides environmental requirements into two categories: Those *standards* that are "applicable or relevant," which must be *met* unless one of five circumstances exists, and other Federal and State standards, criteria, advisories and guidance which are to be *used* in developing that remedy. Generally, "applicable" standards are those that would otherwise be legally applicable if the actions were not undertaken pursuant to CERCLA section 104 or section 106. "Relevant" standards are those designed to apply to problems sufficiently similar to those encountered at CERCLA sites that their application is appropriate, although not legally required. Standards are also relevant if they would be legally applicable to the CERCLA cleanup but for jurisdictional restrictions associated with the requirement. For example, while RCRA site closure regulations might not be legally applicable to a "typical" RCRA facility which ceased operations prior to the effective date of RCRA subtitle C regulations, these regulations would generally be relevant to a determination of what type of capping or monitoring would be necessary to adequately protect health and the environment. Similarly, RCRA treats facilities different depending on whether they are "interim status" (prior to issuances of permit) or operating under a permit. If they are interim status they must comply with 40 CFR Part 265 standards and if they are permitted, they must comply with 40 CFR Part 264 standards. To the extent that the standards differ, EPA will generally be consistent with the often stricter standards of Part 264, where relevant, in determining the appropriate response at CERCLA sites because the 264 standards represent the ultimate RCRA compliance standards and are consistent with CERCLA's goals of long-term protection of public health and the environment. Printed as an appendix to this preamble is a memorandum entitled "Draft Policy on CERCLA Compliance With the Requirements of Other Environmental Laws" which includes a non-binding, advisory list of environmental requirements that EPA believes generally should fall into the "applicable or relevant" category.

The Agency specifically requests comment on applying applicable or relevant RCRA ground water protection and closure requirements to CERCLA actions.

A process, to be developed by the Agency, to assess the public health impacts of chemicals present at CERCAL remedial sites, may be used to set Alternative Concentration Limits (ACLs) pursuant to the RCRA ground water protection requirements (40 CFR 264.94). This process will identify the

most toxic and persistent 40 CFR Part 261 Appendix VIII chemicals present at a specific site and set ACLs for those chemicals. Setting ACLs for the most toxic and persistent chemicals should ensure that the cost-effective remedy will prevent present or potential hazard to human health or the environment.

In determining the appropriate extent of remedy as it relates to other Federal standards, the first step is to consider the extent to which the standard is in fact applicable or relevant to the unique circumstances at the site. For example, some Superfund sites involve situations that RCRA *did not "intend to address."* In those situations, the RCRA regulations would not be applicable per se, but may be relevant on a case-by-case basis. As an example, RCRA was not designed to cover the subsequent management of waste indiscriminantly disposed over 200 miles of roadway, or the subsequent management of contaminated river beds. In such situations, RCRA standards would not be applicable, but parts of the RCRA standards may be relevant.

The following are situations which define circumstances in which applicable or relevant standards are not required to be met by CERCAL remedial actions:

- *Interim measures:* If the selected remedy is not the final remedy for the site, it might be impractical or inappropriate to apply other environmental standards. For example, it might be appropriate to treat contaminated drinking water at the tap as an interim measure, pending final decisions on the appropriate extent of cleanup in the contaminated aquifer itself.
- *Fund-balancing:* As provided in section 104(c)(1) of CERCAL, for Fund-finance actions only, the lead agency will balance the need for protection of public health, welfare and the environment at the site against the amount of money available in the Fund to respond to other sites. Thus, the decisionmaker could select a remedy that does not meet an otherwise applicable or relevant public health or environmental standard if complying with that standard would be disproportionately costly, and Fund monies could be more productively used at another site where a response was necessary.
- *Unacceptable Environmental Impacts:* In some cases, it might be possible to meet applicable or relevant Federal standards, but compliance might result in significant adverse environmental impacts. This might be the case, for example, when dredging contaminants from the bottom of a body of water to levels required by environmental standards would result in more harm to the ecosystem than an alternative remedial response.
- *Technical Impracticality:* This situation could occur when it is technically impractical, from an engineering perspective, to achieve the standard at the specific site. For example, although the environmental standard may require that contaminated ground water attain background levels, this may be impractical because of the unique hydrogeologic conditions. Another example is a situation where the site is characterized by a steep slope and the standard would require a cap. While the placement of a cap on a steep slope could be technically feasible, it would not be practical because of long-term problems with maintaining the integrity of the cap. The Agency does not intend that this determination be based on a cost benefit determination.
- For enforcement actions under section 106 of CERCLA only, the decisionmaker could choose not to meet an otherwise applicable or relevant standard if the fund is unavailable, there is a strong public interest in expedited clean up, and the litigation probably would not result in the desired remedy. For example, this situation could occur where the defendant lacks sufficient resources to pay for a complete remedy or where liability is in question, the Fund is unavailable and the public interest is served by expeditous cleanup. One situation where the Fund is unavailable is where the State does not have sufficient funds to make the necessary State cost-share match.

Three important qualifications apply to these situations. First, in EPA's experience they will only occur infrequently. That is, most remedial action *will* conform to applicable or relevant Federal public health and environmental standards. Second, when these circumstances exist, they will not result in selection of a remedy that disregards health and environment concerns rather, the decisionmaker will select the alternative that most closely approaches the level of protection provided by the applicable or relevant standard, considering the circumstances which prevented meeting the standard. Third and finally, the basis for not meeting the standard will be fully documented and explained in the appropriate decision documents.

EPA will use Federal health and environmental criteria, advisories, or guidance or State standards in developing the appropriate remedial response at a site, especially where there are no applicable or relevant Federal standards. If EPA determines that these criteria, advisories, or guidance or State standards are relevant, but are not used in the selected remedial alternative or are substantially adjusted, the decision documents will indicate the basis for adjusting or not using them.

In additon, for reason discussed earlier, CERCLA cleanup will generally not be subject to procedural and administrative requirements of other environmental programs, such as permitting. EPA will ensure public participation in these actions through community relations plans, discussed later in this preamble. However, remedial actions that involve storage, treatment or disposal of hazardous substances, pollutants or contaminants at off-site facilities shall only occur at facilities that are operating under appropriate Federal or State permits or authorization.

The final major change proposed in § 300.68 is to clarify the meaning of the term "cost-effective" in the context of selection of the appropriate extent of remedy. Section 300.68(j) in the current NCP provides that the Agency shall select the alternative which is "cost-effective (i.e., the lowest cost alternative that is technologically feasible and reliable and which effectively mitigates and minimizes damage to and provides adequate protection of public health, welfare, or the environment)." Unfortunately, this language has given many observers the erroneous impression that EPA was required in all cases to select the *lowest cost* remedy that provided *minimally adequate* protection of public health, welfare and the environment. EPA did not intend, nor does it believe that CERCLA requires, that cost effectiveness be defined in such narrow terms.

Therefore, to address this issue, EPA is proposing in 300.68(i) to eliminate the reference to selection of the "lowest cost alternative." Instead, 300.68(i) would simply provide that the appropriate extent of remedy shall be determined by selection of a cost effective remedial alternative which effectively mitigates or minimizes the threat to and provides adequate protection of public health, welfare, and the environment. Under the proposed revisions, this requires the selection of a remedy which at a minimum, attains or exceeds applicable or relevant Federal public health or environmental standards. This amendment would also clarify EPA's position that cost effectiveness does not mean simply the selection of the lowest cost minimally adequate remedy. EPA considered replacing this "lowest cost" language with a more sophisticated

decision rule that clearly reflected the concern that cost be taken into account in remedial selection, while providing the flexibility to select a remedy which is more reliable and protective than the least expensive minimally adequate alternative. Development of such a decision rule, however, is very difficult at this stage of the Superfund program.

Pending development of such a decision rule, EPA proposes to use the following general approach in selecting the cost-effective alternative from among remedies which provide what is considered to be at least minimally adequate protection. First, it is clear that among remedies which are *equally* feasible, reliable, and provide the same level of protection, EPA will select the least expensive remedy. Second, where all factors are not equal, EPA must evaluate the cost of each alternative and the level of protection provided by each alternative. Of course, in evaluating the cost of remedial alternatives, EPA must consider not only immediate capital costs, but the cost of dealing with the waste over the entire period that it would be expected to pose a threat to health and the environment. To give an example, EPA might select a treatment or destruction technology with a higher capital cost than long-term containment because the treatment/destruction offered a permanent solution to the problem. The reliability of various alternatives will be taken into account to the maximum extent possible, including the cost of such factors as the long-term operations and maintenance and the integrity of physical structures.

Finally, EPA clearly would not always pick the most protective option, regardless of cost. Instead, EPA would consider costs, technology, reliability, administrative and other concerns and their relevant effects on public health, welfare and the environment. This would allow the decisionmaker to select that alternative which, *at the specific site* in question, was most appropriate from a cost, technology, reliability and administrative perspective, considering public health, welfare, and environmental impacts.

Specific Changes

Section 300.68 generally follows the order in which a remedial action is planned and implemented. Several changes are proposed throughout the section. Some of these implement the major changes discussed above; others are designed to streamline the remedial program, to remove ambiguities, or to codify current EPA practice. These will be discussed in the order in which they appear in the section, using, for ease of reference, the letters and headings that begin each subsection.

(a) *Introduction.* This subsection has been revised to clarify the circumstances under which remedial actions may be taken. The language in the existing NCP indicates that remedial actions can only be taken at sites on the NPL. The purpose of this restriction was to ensure that the limited Fund monies were only used for remedial action at NPL sites, which had been identified as posing the greatest potential threats to human health and the environment, *not* to make the NPL the exclusive list of necessary remedial or enforcement actions. The purpose of the change is to clarify the purpose of the NPL. It provides that remedial action may be taken at any site; however, *Fund-financed* remedial action is available only for sites on the NPL. This allows parties to conduct remedial actions at non-NPL sites and to seek recovery of their costs from those responsible for the release through section 107 of CERCLA.

Other proposed revisions to this subsection include: introduction of the term "Remedial Project Manager" (RPM) to describe the remedial action counterpart of the "On-Scene Coordinator" (OSC) in removal actions; and, a provision that Federal, State, and local environmental permits or authorization are not required for Fund-financed remedial action, or for remedial action taken pursuant to section 106 of CERCLA except for storage, treatment or disposal of wastes at an off-site facility; implementing this portion of the policy discussed under "Overview of Changes," above.

(b) *State Involvement.* Among the proposed changes to this subsection is the statement that a State participating in a Fund-financed remedial action must meet the requirements of section 104(c)(3) of CERCLA; i.e., requirements that the State will assure future operation and maintenance of the remedial measure, that it will assure the availability of an off-site facility that meets RCRA requirements, and that it will share in the costs of remedial actions. These requirements are currently found in §§ 300.62 and 300.67(b) of the NCP.

Another change clarifies EPA's interpretation that planning activities taken pursuant to section 104(b) of CERCLA generally do not require a State cost-share. Thus these planning costs, such as RI/FS and design work, are not subject to the State cost-share requirement unless the site was owned at the time of any hazardous substance disposal by the State or political subdivision. The absence of the cost-share requirements for these activities has enabled EPA to move ahead more rapidly with remedial planning activities at NPL sites.

(c) *Scoping of Response Actions.* This section has been greatly expanded to reflect the early planning that precedes implementation of remedial action. The proposal requires examination of what types of actions may be necessary to remedy a release: Removal action, source control measures and actions to manage migration, or some combination of those measures. Because IRM's have been eliminated as a special category of remedial actions, removal actions would be considered in scoping the response action. This should foster an integrated process that allows rapid implementation of actions necessary to protect public health and the environment, consistent with longer term remedial actions.

The factors to consider in the scoping process, currently located in § 300.68(e)(2), have been moved to the scoping section and expanded to reflect factors that the lead agency should consider when approaching a response action. The proposal adds several new factors in § 300.68(c)(2), including:

- Paragraph (ii)—The proposed addition of a "routes of exposure" factor reflects sound environmental and is intended to assure that all actual and potential routes of exposure are considered.
- Paragraph (iii)—The proposal adds considerations relevant to off-site versus on-site disposal and the use of permanent destruction or immobilization for certain chemicals. In addition, EPA believes that the persistence, mobility and ability to bioaccumulate should be considered in determining how to handle substances. Where substances are persistent, mobile or bioaccumulate readily, the Agency believes that additional measures may be necessary to prevent future environmental or public health threats. Permanent destruction, neutralization, or immobilization will be preferred in treating or disposing of these wastes.
- Paragraph (iv)—The proposal adds floodplain and wetlands proximity as a factor to assure analysis of floodplains and wetlands in accordance with the requirements of Executive Orders 11988 and 11990.
- Paragraph (vii)—Recycle/reuse of certain substances may be available as a way of permanently abating future threats of release. Recycle/reuse also has the added benefit of helping to conserve the capacity of RCRA permitted disposal facilities.

• Paragraph (xi)—Consistent with the proposed requirement regarding compliance with other environmental laws, among the factors proposed to be considered during scoping is the extent to which the contamination levels exceed applicable or relevant State and Federal environmental standards, advisories and criteria.

• Paragraph (xiii)—Where the remedial action may be carried out by responsible parties, the Agency proposes to assess the ability of the responsible parties to implement and maintain the remedial measure until the threat is abated. When responsible parties may not be able to support long-term monitoring or otherwise implement or maintain the remedy, it might be appropriate to require responsible parties to consider higher capital construction cost remedies that abate the threat more quickly and certainly.

(d) *Operable Unit.* As discussed earlier, the proposal reflects EPA's practice of dividing complex response actions into operable units. Operable units must be cost-effective and consistent with permanent remedial action and may be carried out as either removal or remedial actions.

(e) *Remedial Investigation/Feasibility Study.* As provided in the current NCP, the proposal requires evaluation of alternative remedial responses through a remedial investigation and feasibility study. This subsection also indicates that during remedial planning the analysis should assess the need for a removal action in lieu of or in addition to the remedial action.

(f) *Development of Alternatives.* This subparagraph addresses the first step of the cost-effectiveness analysis in the feasibility study and requires the development of alternative remedial responses. The proposed changes spell out in greater detail the range of alternatives that should be developed. These include off-site treatment or disposal alternatives and the no-action alternative, as well as alternatives designed to implement the proposed requirement regarding compliance with other environmental requirements. In this last category, the feasibility study should develop alternatives that attain, exceed, and fall short of other environmental requirements, to aid the decisionmaker in determining the alternative that best fits within the framework of that policy. In addition, the decisionmaker should take into account alternatives which consider relevant criteria, guidance or advisories, especially where there are no relevant or applicable standards. Finally, where appropriate, the feasibility study should take into account alternative technologies, such as waste minimization, destruction, and recycling.

(g) *Initial Screening of Alternatives.* Once alternatives are developed, section 300.68(g) requires screening of alternatives on the basis of cost, effectiveness, and engineering feasibility. In substance, this subsection remains largely unchanged. One change is to specify that an alternative that would otherwise be eliminated because of disproportionate costs should nonetheless be considered if there is no other remedy that adequately protects human health and the environment by meeting applicable and relevant standards, advisories, or criteria. Since these applicable and relevant requirements often define the minimally adequate level of public health and environmental protection, the decisionmaker normally should consider (although not necessarily select) the alternative incorporating applicable or relevant requirements, irrespective of costs.

A second change proposed in this subsection is to specify that the feasibility study should document any alternatives eliminated on the basis of cost. Finally, an expanded paragraph on "effectiveness" would replace the current paragraph on "Effects of the Alternative," and would clarify when ineffective alternatives should be eliminated. Two types of alternatives should generally be screened out: those that do not effectively contribute to the level of protection, and those with significant adverse effects and limited environmental benefits.

However, the fact that an alternative does not meet "applicable or relevant" standards would not necessarily be a reason to eliminate it, since under EPA's proposed requirement regarding compliance with other environmental laws, such an alternative might be selected under appropriate circumstances, indicated in 300.68(i).

(h) *Detailed Analysis of Alternatives.* This subsection requires a detailed analysis of those alternatives remaining after the initial screening, in terms of cost, engineering, and environmental and public health protection. Two substantive changes are proposed in this subsection.

The first explains how the proposed requirement regarding compliance with other environmental laws applies to the analysis of alternatives. Specifically, the analysis should consider the extent to which the alternative meets or exceeds applicable or relevant requirements. For management of migration actions, i.e., where contaminants have moved or are likely to move off-site, when no applicable or relevant requirements apply, the lead agency should evaluate the risks of exposure projected to remain after implementation of the alternative in those circumstances. This evaluation of risks is unnecessary for alternatives attaining or exceeding applicable or relevant requirements since those requirements generally establish the appropriate level of cleanup without further analysis of the residual risk.

An assessment of the risk posed by the source-control remedial measures likewise is not required, since the goal of these measures is to prevent future releases into the environment. In additions, these source control situations pose difficulty in modeling risks. For source control remedial measures, therefore, EPA will use a technology-based approach to determine the appropriate alternative for preventing further releases.

The second proposed change in this subsection is to require an analysis of whether recycle/reuse, waste minimization, destruction, or other advanced and innovative or alternative technologies are appropriate to remedy the release. This change parallels modifications proposed in paragraphs (d)(2)(vii) and (f)(2), discussed earlier.

(i) *Selection of Remedy.* This final step in the remedial process is the selection by the decisionmaker of the appropriate remedial alternative. There are two important changes in the proposal. First, as discussed earlier, the selected remedy must meet the substantive requirements of applicable or relevant Federal standards unless one of the enumerated circumstances is present. The applicable and relevant standards define the adequate level of protection of public health and the environment. One of these circumstances, "Fund-balancing," is the subject of § 300.68(k) of the current NCP. Accordingly, that subsection would be subsumed in the new subsection (i).

Second, also discussed earlier, the proposal clarifies that EPA is not required to select the lowest cost remedy that provides minimally adequate protection.

(j) *Appropriate Actions.* This new subsection would set out certain remedial actions that, in EPA's experience, are appropriate in specific circumstances. The subsection details appropriate remedial responses that are, in general, an appropriate response to contaminated ground water, contaminated surface water, contaminated soil or waste, and the threat of direct contact with hazardous substances. As with removals, Agency experience has indicated that certain

types of actions are generally appropriate to address situations commonly found at remedial sites. This specification is not intended to limit the lead agency from employing responses which are different than those listed or from responding to more than just the listed circumstances. The Agency retains the ability to develop the most appropriate response, considering the individual site and other characteristics.

(k) *Remedial Site Sampling.* Finally, another new subsection would specify those circumstances in which sampling performed in support of remedial action is presumed adequate. This subsection codifies current EPA practice on conducting site sampling.

Section 300.68(k) provides for a written plan for sampling performed pursuant to remedial action. This plan will specify the nature and extent of sampling. A written plan which meets the criteria of § 300.68(k) will be considered adequate. Section 300.68(k)(2) requires that this remedial quality assurance site sampling plan be reviewed and approved by the appropriate EPA Regional or Headquarters Quality Assurance Officer.

C. Site Evaluation Phase and NPL Determination

Introduction

Section 300.66 currently serves two purposes. First, it establishes criteria to determine the appropriate action when a preliminary site assessment indicates a need for further response, or when the OSC and lead Agency concur that further response should follow an immediate removal action. Second, it outlines the process and criteria for placing sites on the NPL.

Several changes are proposed in this section. In general, these changes call for the development of more detailed information in the site evaluation phase. Additionally, the proposed modifications delete the prohibition against listing Federal facilities on the NPL, and include providing additional bases for including sites on the NPL, and provisions for deleting sites from the NPL. The effect of these latter changes will be increase EPA's flexibility to take remedial actions at problem sites, and to provide a more formal mechanism for removing sites from the NPL.

The NPL has been promulgated separately from this rulemaking. The promulgated NPL can be found at 49 FR 37070, September 21, 1984, and the most recent proposed revisions to the NPL can be found at 49 FR 40320, October 15, 1984.

Specific Changes

Subsection (a)—Site Evaluation. These provisions consolidate the substance of the material found in subsections (a)–(c) in the existing NCP. Subsection (a) discusses the site evaluation phase, which extends from the time of discovery of a release through preliminary assessment and site inspection. The proposal clarifies that the purpose of site evaluation is to determine the nature of potential threats occasioned by a release and to collect data for determining whether a release should be included on the NPL. To provide greater flexibility, paragraph (a)(2) of the proposal expands authorized activity to include preliminary assessments in addition to site inspections, and removes the requirements that response officials and enforcement officials conduct these activities jointly. Paragraph (a)(3) establishes that in remedial situations, preliminary assessments consist of review of existing data and may include off-site reconnaissance. The preliminary assessment is intended to eliminate further consideration of releases which do not pose threats to public health and the environment, to determine potential danger to those living or working in the vicinity of the releases, and to establish priority for scheduling site inspections.

Proposed paragraph (a)(4) would further elaborate the purposes for a site inspection: To determine whether a release poses no actual or potential threat to public health and the environment; to determine whether there is immediate potential danger to those living or working in the vicinity of the release; and to collect data to determine whether a release should be placed on the NPL.

Subsections (b)–(c)–NPL. The principal changes proposed in these provisions are intended to provide EPA with additional flexibility to place sites on the NPL. Since a site must be on the NPL to be eligible for Fund-financed remedial action, this increased flexibility provides greater opportunities to take remedial actions at sites, when appropriate. For the seasons stated below, EPA is providing for a somewhat shortened comment period on the proposal to add a new basis for listing a site on the NPL.

Proposed subsection (a) generally addresses the ways in which a release can be included on the NPL. In general, the NCP currently requires that a site satisfy one of two tests to be eligible for inclusion on the NPL: The release must score above a threshold level using the Hazard Ranking System (HRS), or the release must be designated by the State as its highest priority release. The proposal retains these provisions (the HRS has not been changed since July 1982).

Pursuant to CERCLA section 105(8)(B), the State may designate a top priority site for inclusion on the NPL. EPA will allow each State to designate *one* top priority site over the life of the NPL.

Proposed paragraph (b)(4) would add a new mechanism for including a release on the NPL irrespective of its HRS score, based on a determination that a site poses a significant threat to public health. Specifically, EPA may base that determination on whether the Department of Health and Human Services has issued a health advisory as a consequence of the release. This might, for example, make eligible for remedial action a site at which a small number of people are seriously threatened, although scoring on the HRS would not necessarily exceed the threshold level.

CERCLA does not require that a site be on the NPL to be eligible for Fund-financed remedial responses. That restriction is one EPA voluntarily imposed in the existing NCP, for reasons of Fund-management and to alert the public to the significance of a site being included among the priority releases. The Agency believes that the restriction still serves these important functions and should be retained. However, the restriction has led to instances in which remedial action, although seemingly appropriate, was unavailable because the site did not receive a sufficiently high HRS score. The above criteria attempt to address this problem by broadening the bases for inclusion on the NPL. EPA will continue to propose and solicit comments on revisions of the NPL, so that interested parties will have an opportunity to address the extent to which a particular site warrants being included on the list.

EPA is providing for a 30 day comment period on this proposal to provide an additional basis for inclusion of a site on the NPL, rather than the 60 day comment period provided for the remainder of the proposed revisions of the NCP. The Agency intends to review the comments on this proposal in an expedited fashion, and depending on the nature of the comments may finalize this change prior to a final decision on the remainder of the proposed amendments.

The Agency is identifying this particular issue for expedited comment for several reasons. First, EPA is now considering appropriate response measures at several sites which are not eligible for inclusion on the NPL based on the existing NCP criteria, but which

could be listed on the basis of the proposed new criteria. Addition of these new criteria for NPL listing could allow expedited addition of such sites to the NPL. As a result, EPA would be able to select remedial measures at these sites, if appropriate, such as where remedial measures are more cost-effective than taking removal actions at these sites.

Second, EPA has previously solicited comment on the general issue of alternative criteria for listing sites on the NPL (48 FR 40675–76, September 8, 1983), including the possible use of health advisories as a basis for listing sites which do not receive a sufficiently high HRS score. Third, EPA believes that the issue of adding a new listing criteria is a relatively discrete and narrow one. Thus, EPA believes that utilizing a 30 day comment period on this particular issue would not impose an undue burden on persons who would be interested in commenting on this issue.

Another proposed modification would delete the prohibition which limits sites currently owned by the Federal Government from being included on the NPL. EPA is soliciting comments on different ways of advising the public of the status of Federal Government clean-up efforts. One approach would be the listing on the NPL on the NPL of sites currently owned by the Federal Government. Other approaches the Agency can consider for Federal facilities include the periodic publishing of the list of each Agency's priorities through the A–106 process under Executive Order 12088, or the publishing of a list of each Federal agency's facility cleanup priorities independent of the NPL.

The proposal addresses when sites may be deleted from the NPL. Sites may be deleted where no further response is appropriate, based on the following criteria:

(1) If the responsible parties or other parties have completed all appropriate response actions;

(2) If all appropriate Fund-financed response under CERCLA has been completed and no further cleanup by responsible parties is appropriate; or

(3) If EPA has determined that the release poses no significant threats so that taking response action is not appropriate at the time.

Notwithstanding deletion from the NPL, a previously listed site will remain eligible for Fund-financed remedial action if future conditions warrant that action.

Other, less significant changes to the NPL provisions include: Reiteration of the statutory criteria that the NPL contain at least 400 releases and potential releases, and that the list be updated annually; clarification that inclusion on the NPL is a precondition to eligibility for *Fund-financed* remedial action, not a precondition to liability under section 106 of CERCLA (enforcement actions) nor to action under section 107 for non-Fund-financed costs or Fund-financed non-remedial expenditure; and a requirement that States include appropriate documentation with HRS score sheets (as is currently done). EPA is not proposing to modify the HRS in this rulemaking and is not soliciting comments on the HRS.

D. Other Party Responses

The former § 300.71, concerning worker health and safety has been moved to § 300.38. The new § 300.71 addresses the requirements the NCP imposes on parties other than the lead agency (including responses by responsible parties, other private parties and Federal and State governments).

Discussion

Proposed § 300.71(a) recognizes that *parties* other than the lead agency may undertake response actions and specifies the roles the lead agency and other parties play in the different types of responses: Enforcement actions under CERCLA section 106 and response actions and recovery of costs by other parties pursuant to section 107.

Enforcement Actions

Section 300.71(a) clarifies the lead agency's responsibility in reviewing actions undertaken pursuant to § 106 of CERCLA. Proposed § 300.71(a) directs that the lead agency, *in specific limited circumstances,* evaluate the adequacy of the response action proposed by the responsible party and approve those actions, taking into consideration the factors discussed in §§300.65 (for removal actions) and 300.68 paragraphs (c) through (i) (for remedial actions). In enforcement remedial actions, the lead agency, however, will not apply the Fund-balancing considerations discussed in § 300.68(i).

Other Non-Lead Agency Responses and Recovery of Costs Pursuant to CERCLA Section 107

When a private party seeks to recover response costs from a responsible party under CERCLA section 107(a)(1–4)(B), that party must demonstrate that its response actions were *consistent with the NCP.* (States and the Federal Government must show that other actions were "not inconsistent" with the NCP.) To clarify what "consistent with the NCP" for this purpose means, § 300.71(a) has been added to the NCP.

First, § 300.71(a) (3) and (5) state that the lead agency does *not* have to evaluate and approve a response action for those costs to be recovered from a responsible party pursuant to CERCLA section 107. Instead, § 300.71(a)3) states that only response actions undertaken pursuant to section 106 actions instituted by the Federal Government and actions involving preauthorization of Fund moneys under 300.25(d) of the NCP require advance Federal government approval of a response action. Furthermore, § 300.71(a)(5) goes on to spell out the requirements a private party must meet to be consistent with the NCP. These requirements are as follows:

A. *Removal Actions:*

—take removal in circumstances as specified in § 300.65

B. *Remedial Actions:*

—consider factors as enumerated in § 300.68(c)–(i)

—provide for an appropriate analysis of alternatives

—selection of the cost-effective response.

The private party may choose a more costly response, but the responsible party is only responsible for the costs of the "cost-effective" remedy.

When a private party intends to take a response action and wishes to seek reimbursement from the Fund it must first become preauthorized [See § 300.25(d) for the preauthorization requirements].

Section 300.71(c) addresses the process of certification for individuals or organizations. Certification is a method for establishing engineering, scientific, or other technical expertise necessary to undertake remedial actions, safely and effectively. Demonstrating this technical expertise is one of the requirements for requesting preauthorization [See § 300.25(d)(5)]. Certification, however, is not necessary for fund preauthorization. To receive certification, the organization must submit a written request for certification that demonstrates that the organization has the qualifications necessary for implementing response action.

The advantage of certification is that the organization need only submit the written request demonstrating its qualifications one time rather than each time it requests preauthorization. Thus, an organization which becomes certified will administratively speed up the preauthorization process.

Section 300.71(c)(4) specifies that the Administrator will respond to certification requests within 180 days. The 180 days start when a complete

certification request is received by the Administrator. Once certification is granted, the individual or organization will be considered to be generally qualified, but the certification shall not constitute advance approval of all response work.

Section 300.71(e) states that response completed by any party does not release parties from liability to the government under CERCLA.

III. Other Revisions

In addition to the major revisions discussed in section II, the following minor revisions to all the subparts are proposed (including revisions to subpart F not discussed in the previous section). These revisions are presented below by subpart.

Subpart A

Section 300.5 Abbreviations.

The Agency proposes to add the abbreviation "RPM" meaning "Remedial Project Manager" to the list of abbreviations. This corresponds to other changes proposed in today's rulemaking that define the role and responsibilities of this Federal official.

Section 300.6 Defintions.

Discussion

A number of changes to this section are proposed. The first is the addition of definitions for terms used in the present Plan but not previously defined. These terms are "activation," "coastal waters," "CERCLA," "feasibility study," "inland waters," "specified ports and harbors," "size classes for releases," "first Federal official," "remedial investigation," and "source control." The intent of these additions is to address questions that have been raised concerning the defintion of these terms as used in the Plan. The second change is the addition of some new terms and the deletion of an existing term used in the Plan. The new terms added to the Plan are "managment of migration," "operable unit," "project plan" and "remedial project manager." The terms deleted from the Plan are "off-site remedial measures" and "responsible official." The final change is the revison of definitions for "OSC" and "lead agency." These definitions have been modified to correspond to present practice and to reflect changes proposed to other sections of the Plan.

Specific Changes

"Activation" has been defined to clarify that the entire RRT or NRT must not necessarily be assembled to consider issues raised during a response. There are many situations where the expertise of only a portion of the RRT or NRT membership is necessary to provide advice or assistance to the OSC/RPM, thus not requiring the participation of all members. The proposed definition states this position and provides the RRT or NRT charimen with the discretion to assemble the appropriate RRT or NRT members to carry out their responsiblities.

Definitions have been added for the terms "inland waters" and "coastal waters" as used to classify size of discharges for oil spills. These terms were not meant to correspond to the waters within the inland zone and coastal zone, but there were different interpretations as to what was the correct definiton. The definition of these terms should resolve inconsistencies between EPA and USCG OSCs when classifying oil spills on inland rivers.

"CERCLA" or "Superfund" has been defined. "Feasibility Study"and "Remedial Investigation," two key parts of remedial action have been defined. The term "specified ports and harbors" has been defined to mean port and harbor areas on inland rivers, and land areas immediately adjacent to those waters, where the U.S. Coast Guard (USCG) acts as predesignated OSC. Questions have been raised whether there were specific locations where the USCG should be OSC. The Agency's opinion, as indicated by the definition, is that exact locations where the USCG acts as OSC should be negotiated between USCG districts and EPA regions on a regional basis and identified in Regional Contingency Plans. Negotiations at this level can best account for resource availability of the two agencies.

A definition has also been added for the term "first Federal official" to clarify the roles and authorities of this individual. In many areas of the country, representatives of NRT member agencies may arrive at the scene of a discharge or release before the predesignated OSC. This definition clarifies that this official is authorized to coordinate response activities under this Plan and initiate actions normally performed by the OSC until their arrival. This new definition corresponds to an additional revision to 300.33 proposed today concerning the scope of authority for these officials.

The final definition added involves size classes for releases of hazardous substances, pollutants, or contaminants into the environment. Size classes are generally meant to be triggers for actions and report requirements under this Plan, and may not directly relate to the severity of a release. Thus, the Agency did not include a size classification for hazardous substance releases in the 1982 revision to the Plan. Since that time, there has been some confusion on whether hazardous substance releases should be classified in the same manner as oil spills. The Agency intended that releases be classified by the OSC taking into account the many factors that effect the impact of a release (e.g., quantity, environmental; medium affected, location). The Agency considered the use of a factor such as reportable quantity to classify releases, but does not feel that using this quantity, which relates only to reporting requirements, would account for all the variables that influences the impact of a release on public health or welfare or the environment. Thus the definition for size classification requires OSCs to classify a release based on their assessment of its threat to public health or welfare or the environment, taking into account the many variables that influence this potential threat.

The Agency also proposes to add another new term, "remedial project manager (RPM)," and delete the existing definition of "responsible official." These changes are ment to clarify who is responsible for coordinating Federal remedial actions resulting from releases of hazardous substances, pollutants, or contaminants. As a matter of practice, predesignated OSCs are generally involved only in oil response under subpart E and removals under subpart F. The Term "OSC" has not been widely used for the lead agency personnel managing remedial actions. The term RPM is added as the remedial action counterpart to the OSC to distinguish between the OSC and the RPM since the activities they are responsible for implementing under the Plan are different in scope, nature, and duration. This new definition complements definitional changes for OSC and lead agency. This change necessitates changes in subparts A, B, C, D, and F to reflect the role and responsibilities of the RPM. These changes will be cited throughout this preamble. EPA has reviewed each citation of the term "OSC" in the present Plan, and added the term "RPM" where appropriate.

The term "RPM" was not added in sections where only removal actions were indicated. EPA intends to designate RPMs for each remedial action undertaken under subpart F of this Plan. In addition, by agreement, the USCG will predesignate an RPM for any remedial actions involving vessels in the coastal zone. The definition of RPM for remedial actions on the Department of

Defense (DOD) facilities indicates the Federal official designated by DOD. This accounts for those situations where DOD may designate EPA to act as RPM for a remedial action involving their facilities, based on an EPA/DOD Memorandum of Understanding. Interested public may obtain copies of this MOU from EPA or DOD. The roles and responsibilities of an RPM are discussed in greater detail in the discussion of changes to 300.33 later in today's preamble.

The definitions for two terms presently included in 300.6 have been modified. These are "OSC" and "lead agency." The definition of OSC has been modified by deleting any reference to States acting under cooperative agreements under CERCLA, by limiting OSC responsibilities to responses under subpart E and removals under subpart F of the PLAN (to complement the new RPM responsibilities for remedial actions), and by adding language to clarify DOD predesignated OSC responsibilities. The deletion of States acting under cooperative agreements is meant to clarify the respective roles of the Federal Government and the States in removal actions. As redefined, the terms OSC and RPM will only apply to Federal officials, since this person is responsible for coordinating the response of Federal agencies under this Plan. As is discussed later in today's preamble, States acting as lead agency for a response under CERCLA will still carry out the responsibilities of the Federal OSC/RPM. The language concerning DOD has been clarified to indicate that DOD acts as predesignated OSC only for releases of hazardous substances from their vessels and facilities. For discharges of oil from DOD vessels and facilities, EPA or USCG OSCs will provide advice and oversight of response actions as they do for incidents involving other Federal agencies. This change is discussed in more detail later in today's preamble in the section covering proposed changes to §300.33. The definition of "lead agency" has also been modified to clarify the relationship of this term to "OSC" and the new "RPM" proposed today. As indicated above, the OSC and RPM are Federal officials. In the case of a State-lead response under subpart F of this Plan, the State will carry out the responsibilities of the OSC or RPM, but will not replace that Federal official. This change, combined with the change in the definition of OSC and the addition of the new term RPM, should help clarify any confusion over the respective roles of the OSC and lead agency as used in the Plan.

The Agency has reviewed the use of the terms OSC, RPM, and lead agency throughout the Plan. OSC or RPM is proposed where this individual is authorized to take action under the Plan; lead agency is proposed where the authority does not necessarily rest with the individual OSC/RPM (but the lead agency could internally delegate such authority as it sees fit). "OSC" is used in subpart E to reflect the vesting of authority in the lead Federal official on-scene due to the emergency nature of spill responses. "Lead agency" is used most frequently in subpart F to reflect vesting of authority with the agency since many actions in CERCLA responses (particularly remedial actions) require the OSC/RPM to consult and clear actions with other officials.

Subpart B

Section 300.22 Coordination among and by Federal agencies.

Discussion

An editorial change has been made to (d)(2) to correct a typographical error. The word "of" on line 3 is replaced by "or."

Also, although there has been no change in the language, the Agency would like to clarify existing language in paragraph (f) concerning coordination of responses to spills involving Outer Continental Shelf Lands Act (OCSLA) operations. There have been some inquiries concerning the status of a Department of Transportation/Department of Interior (DOI) Memorandum of Understanding that addresses response to OCS incidents. This MOU, which outlines the roles of the DOI representative and the USCG on-scene coordinator for discharges in connection with OCS operations, was signed on August 16, 1971 and remains in effect. The Agency does not believe it is necessary to refer to this MOU in the Plan since it serves only to clarify overlapping jurisdiction of the agencies under OCSLA and the Clean Water Act and does not affect the Federal OCS response. Interested public may obtain copies of the MOU from DOI or the USCG.

Section 300.23 Other assistance by Federal agencies.

Discussion

The Agency proposes to add a description of capabilities of NRT member agencies to support OSCs/RPMs during a response action. These capability statements were deleted in the 1982 revisions to the Plan. Since that time, the Agency has reconsidered this issue and feels that it is appropriate to include a brief description of Federal agency capabilities to increase the public's understanding of the respective capabilities of the various agencies that support an OSC or RPM during a response. References to the new term RPM are proposed in §§ 300.23(b) and 300.23(c)(1).

Section 300.24 State and local participation.

Discussion

The Agency proposes to add language to this section concerning the roles of State and local governments in protecting the public health and welfare during an initial response to a discharge or release and to clarify a State's use of the titles OSC and RPM.

Specific Changes

A new paragraph (a) is proposed to address the role of the State and local governments in protecting public health and welfare during a response. In most instances where a Federal response is necessary for a discharge of oil or release of a hazardous substance, pollutant, or contaminant, State and local officials are on scene before the OSC. The proposed addition reflects this first responder role to initiate public safety actions (roadblocks, crowd control, etc.) to protect the public health and welfare pending the arrival of the OSC. It also recognizes that it is a State and local responsibility, as a practical matter rather than Federal law, which will direct any evacuation necessary because of a discharge or release. The Agency believes that these officials are the most capable to carry out these actions, both because of their police powers and since most evacuations are time critical in nature. A similar change is also proposed to § 300.62 for responses under subpart F.

The Agency also proposes to add language to clarify that States may use the titles OSC and RPM for their response personnel without such use carrying the legal meanings for Federal officials in this Plan. This change is necessary since the OSC and RPM have been redefined as Federal officials. However, States acting as lead agency through a contract or cooperative agreement must carry out the same responsibilities as the Federal OSC/RPM (except coordinating and directing Federal agency response actions).

Section 300.25 Non-Government participation.

Discussion

The Agency proposes to add language at the end of paragraph (b) of this section to clarify the role of the scientific support coordinator (SSC) in coordinating technical and scientific information from non-government sources. Existing language in the Plan does not indicate who is responsible for coordinating these efforts. While this information is helpful in carrying out a response, the participation must be coordinated to ensure the OSC is not overburdened with this assistance. The SSC is the appropriate person to coordinate this non-government participation in technical and scientific issues. Also a reference to RPM is proposed in § 300.25(b).

Pursuant to section 111(a)(2) of CERCLA, § 300.25(d) requires that a person other than the Federal Government or a State or person operating under contract or cooperative agreement with the United States who takes response action and wishes to seek reimbursement from the Fund must first obtain prior approval from EPA of the response action and the submission of a claim against the Fund. This preauthorization requirement was intended to ensure that private responses for which Fund reimbursement is sought are cost-effective and otherwise in accordance with this Plan. In addition, the preauthorization requirement is necessary for proper Fund management, to ensure that Fund monies be available for the most urgent priorities.

This proposal would add paragraphs (2), (3), (4), and (5) to § 300.25(d). Fund preauthorization will be considered only for (1) releases warranting removal action pursuant to § 300.65; (2) 104(b) actions where the agency believes the site will be or is listed on the NPL; and (3) remedial actions at NPL sites. Preauthorization will be subject to Fund balancing considerations. The factors considered for determining priority are competing uses of the Fund, listing on the NPL, determination of potential threat to public health and the qualifications of the requester. Payment of a claim under section 112 will be conditioned on the lead agency certifying that costs incurred were necessary and consistent with the preauthorization. The Agency is currently in the process of developing separate regulations that will specifically address the preauthorization process.

Subpart C

Section 300.31 Organization.

Discussion

The Agency proposes to add a diagram outlining the NCP concepts, and maps showing the 10 Standard Federal Regions and 12 USCG Districts. These were included in the 1980 Plan and deleted in the 1982 revisions. The Agency feels that the addition of these items will increase the public's understanding of the national response mechanism and provide information on the EPA region or USCG district with jurisdiction over specific geographic locations in the U.S.

Section 300.32 Planning and coordination.

Discussion

Eight changes or additions to this section are proposed. The intent of all these modifications is to reflect present practices and to better define the roles of the NRT and RRT in the national response mechanism. Each proposed change is discussed below.

Specific Changes

The first set of changes apply to the designation of NRT or RRT chairmen during a responsive activation. Existing language in (a)(2) of this section and in 300.34(f)(2) indicates that the chairman for an activation is the representative of the Federal lead agency for the response. This has caused some confusion over whether DOD would act as chairman for responses involving releases of hazardous substances, pollutants, or contaminants from their vessels and facilities. The Agency believes, with DOD concurrence, that for continuity of organization, the EPA or USCG should act as chairman for the NRT or RRT during a response to an incident involving DOD. Thus, the Agency proposes to change the last sentence in (a)(2) and to add a sentence to (b)(1) indicating that the NRT or RRT chairman during an activation is the EPA or USCG representative, based on whether the discharge or release occurs in the inland zone or coastal zone, or as otherwise agreed upon by the USCG and EPA representatives. There could be situations, such as a DOD remedial action in the coastal zone, where the USCG would defer to EPA to act as chairman.

The second set of changes relate to the role of the NRT in providing advice to the RRTs. The existing language in (a)(8) indicates that the NRT may consider matters referred to it by an RRT for settlement. This has resulted in some concern since the word "settlement" seems to imply that there must be a dispute within the RRT before NRT involvement is appropriate. EPA did not intend this to be the case. RRTs are encouraged to refer matters to the NRT whenever necessary. To clarify this, EPA proposes to change (a)(8) to indicate that the NRT will consider any matters referred to it by RRTs for resolution of outstanding issues or to provide advice. Also, there has been some confusion since the present Plan does not address when it is appropriate for an RRT to refer matters to the NRT. To clarify this, a new paragraph (b)(7) is proposed. This language indicates that RRTs may refer matters to the NRT whenever there is insufficient national policy guidance, a technical issue requiring solution, a question concerning interpretation of language in the Plan, or a disagreement on discretionary actions between RRT members that cannot be resolved on a regional level. Note that disagreements at the RRT level must involve discretionary actions of the RRT. Actions of an RRT that are not discretionary in nature, although they may be disagreeable to some RRT members, would not be appropriate for referral to the NRT.

The third change to this section involves the addition of specific responsibility for the NRT to monitor response related research and development activities of Federal agencies. Many agencies have research and development (R&D) projects underway that support response activities. The Agency intends that the NRT monitor R&D activities of NRT agencies to ensure that the appropriate coordination occurs between agencies and that duplication of effort is minimized. The NRT will be in a position to identify areas requiring R&D, and to provide recommendations for future efforts to the appropriate agencies. The language proposed for a new (a)(7)(v) will task the NRT with this specific role.

The forth change to this section involves the role of the NRT and RRT in training and preparedness for response. Existing language in the Plan in (a)(8) authorizes the NRT to consider and make recommendations to appropriate agencies. While this has occurred, the Agency believes that the NRT and RRTs should take a more direct role in training and preparedness for response. To implement this, the Agency proposes to task the NRT and RRT with specific responsibilities in this area. The language proposed for a new (a)(7)(vi) under direct planning and preparedness responsibilities of the NRT adds the responsibility for monitoring response

training to encourage coordination of available training resources between member agencies. This should result in less duplication and better coordination of response training by Federal agencies with responsibilities under this Plan. In addition to the NRT role, RRTs will also have responsibility for training and preparedness at the regional level. The Agency proposes to task the RRTs specifically with encouraging the State and local response community with improving their response preparedness and to conduct training exercises as necessary within the region to ensure that members of the response community within the region are prepared to carry out their respective roles. The Agency does not see this as a significant change from present practice, since most RRTs are already involved in training exercises on a recurring basis. the New language proposed for (b)(6)(x) formalizes this role. The language proposed for (b)(6)(ix) also formalizes existing practices. With limits on the availability of Federal resources, State and local agencies are relied on extensively to provide initial response, assessment, and monitoring support for the OSC. The Agency intends that RRTs become involved in encouraging the improvement of State and local Response preparedness.

The fifth change to this section addresses training for OSCs, RPMs, and their on scene representatives. Existing language in the Plan does not address training of OSCs and RPMs. There has always been an implicit responsibility for the Federal agency providing the OSC to train those persons to carry out their responsibilities under the Plan. The proposed language added at (c)(1) formalizes this implicit responsibility. The Agency also proposes to add a new (c)(2) addressing training of on scene representatives of the OSC or RPM. A change proposed today in 300.33 authorizes the OSC or RPM to designate capable representatives of other Federal, State, and local government agencies to act as their on scene representatives at a response. The language added in (c)(2) tasks the OSC or RPM to ensure, to the extent practicable, that persons they designate to act as their on scene representatives are adequately trained and prepared to carry out actions they will be tasked with, such as monitoring cleanups, etc.

The sixth change to this section revises the description of the role of the RRT as described in paragraph (b) to clarify the makeup of an RRT. The existing language does not specifically address the structuring of RRTs. As a result, some RRTs are based on the Standard Federal Region while others have subdivided within a region to account for differences in geographic jurisdiction of member agencies. The proposed revision to paragraph (b) and (b)(6) and the addition to (b)(2) reflects the Agency's opinion that RRTs be based on the Standard Federal Regions. The revisions provide for a network of 10 standing RRTs to carry out the planning, coordination, training, evaluation, and preparedness within the region while preserving the incident-specific nature of the RRT to correspond with differences in geographic jurisdictions for member agencies. This structuring recognizes that "regional" boundaries of all RRT members do not correspond to the Standard Federal Regions and provides the flexibility for representation on the incident-specific team based on the geographic location of the incident. Agencies with regional boundaries that do not correspond to the Standard Federal Region, such as the USCG, will be authorized to designate additional representatives to the standing RRT to ensure that their agency is represented for all locations within the region. Participation for a particular incident will involve only those representatives with jurisdiction over the area affected by the release.

The seventh change addresses RRT responsibilities required by the recent rulemaking on subpart H of the Plan. A new sentence (b)(c)(i) is added to ensure that RRTs conduct advance planning on the use of dispersants and other chemical and biological agents. The current § 300.32(b)(6)(1)–(vii) are accordingly renumbered as (b)(6)(ii)–(viii).

The final change to this section deletes the reference in paragraph (d) to DOI providing SSCs for inland areas. As a matter of practice, the SSC for inland areas is normally provided by EPA. This change reflects this practice, but the language still provides for obtaining SSCs from other agencies if determined to be appropriate by the RRT.

Section 300.33 Response operations.

Discussion

Nine changes or additions are proposed to this section. the intent of these revision is to better reflect existing jurisdiction, authorities, and responsibilities of OSCs, to correspond to present practice, and to incorporate the roles and responsibilities of the remedial project manager (RPM). Specific references to the new term RPM are proposed where appropriate in each subparagraph in 300.33(b) except in 300.33(b)(1) and 300.33(b)(12) (as proposed renumbered), which are applicable only to removal actions. Changes to this section also correspond to revised sections being added in subpart C convering public information and worker health and safety. Each proposed change is discussed below.

Specific Change

The first change to this section is the revision of paragraph (a) to reflect the addition of remedial project managers (RPM), to clarify DOD's role as predesignated OSC for hazardous substance, pollutant, or contaminant releases only with respect to their vessels and facilities, and to specify the USCG role at waste sites in the coastal zone. As discussed earlier, the Agency proposes to disignate RPMs for remedial actions, and the existing language in the beginning of (a) has been changed to reflect this proposal. In addition, the language has been modified to reflect DOD's role as predesignated OSC and RPM for hazardous substance, pollutant, or contaminant release from their vessels and facilities. Finally, paragraph (a) has been revised to reflect the role of the USCG OSC in initial response to releases from hazardous waste sites in the coastal zone and to address the transition between the USCG OSC and EPA RPM for remedial actions at facilities in the coastal zone. This change incorporates provisions of the DOT/EPA Instrument of Redelegation of October 1981. This agreement was published in the Federal Register on December 31, 1981 at 46 FR 63294.

The second change to this section expands the authority of the first Federal official at the scene of a discharge or release. Existing language in (b)(i) tasks the first official of an agency with responsibilities under this Plan arriving on scene to coordinate activities under the Plan until arrival of the OSC. The Agency proposes to amend this paragraph to authorize this official to initiate necessary actions pending the arrival of the OSC. This authority includes initiating Federal Fund-financed cleanup actions if such actions are required prior to the arrival of the OSC on scene. This will allow for rapid emergency containment or mitigation measures in those situations where the predesignated OSC is not able to get to the scene of an incident immediately. It should be noted that the authority to initiate Fund-financed actions has been limited by requiring authorization by the OSC or an authorized representative of the lead agency before comitting funds. The first Federal official will normally not be familiar with the cirteria or restrictions for use of the applicable Fund. so any

initiation of action requiring funding must be approved by the OSC or other designated agency official before it occurs. This change should allow for rapid action when necessary, yet ensure that any actions taken before the arrival of the OSC are consistent with policies and procedures required by the CERCLA or 311(k) Fund manager.

The third change to this section adds language to (b)(3) authorization the OSC or RPM to designate capable persons from government agencies to act as their on scene representatives at a response. As a practical matter, because of limited resources, the OSC or RPM is not able to be on scene throughout a response. As a result, they rely on representatives from their own or from other agencies to monitor response actions when they are not present. This change formalizes this existing practice. It should be noted, however, that these designated representative are only acting on behalf of and may take actions only as authorized by the predesignated OSC or RPM, not assuming the full authorities and responsibilities of this person. In addition, State and local representatives are not authorized to act in responses funded by CERCLA or the 311(k) Fund unless the appropriate contract or cooperative agreement has been established.

The fourth change modifies existing language in (b)(8) concerning the responsibilities of Federal agencies for discharges of oil or releases of hazardous substances, pollutants, or contaminants from vessels or facilities under their jurisdiction. Existing language in this paragraph seems to limit hazardous substance responsibility to the 297 hazardous substances designated by EPA under section 311(b)(2) of the Clean Water Act. The Agency proposes to delete this limitation and to add additional responsibility for pollutant or contaminant releases. This change expands agency responsibility to include all releases covered by CERCLA. An additional change expands Federal agency responsibility to include contiguous lands under their jurisdiction. There has also been some confusion over the role of the OSC at a discharge or release involving a Federal agency. The existing language authorizes the OSC to conduct appropriate response activities if, in their opinion, the responsible agency does not act promptly or take appropriate action. There has been some concern that the responsible Federal agency may not have the expertise necessary to carry out a proper and timely response, or the OSC would act independently without providing sufficient opportunity for the Federal agency to respond. The Agency believes that it is implicit that the OSC will consult with the Federal agency before acting, but to clarify this, the language has been changed to require the OSC, or in the case of a remedial action the lead agency, to consult with and coordinate all response activities with the responsible agency. In addition, language has been added to indicate that the OSC or RPM is available to provide advice or assistance as requested by the responsible agency throughout that agency's response. In any case, involvement by the OSC or RPM will be limited by restrictions on the use of the 311(k) Fund and CERCAL Trust Fund at incidents involving Federal Facilities and vessels. The final change to (b)(8) clarifies that DOD designates OSCs or RPMs only for releases of hazardous substances, pollutants, or contaminants with respect to their vessels or facilities. DOD will still be responsible for discharges of oil from their vessels or facilities, but the predesignated EPA or USCG OSC will have an oversight role as they do for incidents involving other Federal agencies.

The fifth change modifies existing language in (b)(9) concerning the OSC's or RPM's relationship with the land managing agency or natural resource trustee. The existing language provides for the OSC to notify the land managing agency or natural resource trustee of a discharge or release affecting Federal resources under its jurisdiction. While this has occurred, questions have been raised concerning to what extent the OSC or RPM should consult with the affected agency or trustee. The Agency believes that the OSC or RPM should consult with and coordinate all response activities that may affect Federal resources with the appropriate land manager or resource trustee. The language added to (b)(9) reflects this opinion.

The sixth change to this section is the addition of an OSC/RPM responsibility to consult with DOI or DOC in those cases where a discharge or release may adversely affect any endangered or threatened species or result in destruction or adverse modification of their habitats. This responsibility was deleted in the 1982 revision to the Plan. As a result, there has been some confusion over the applicability of the Endangered Species Act and the other statutes that protect endangered or threatened species. The Agency feels that there has always been an implicit responsibility for the OSC to consider impacts on these species. In order to clear up any confusion which may exist, reference to this need to consult with either DOI or Department of Commerce has been added as (b)(10).

The seventh change involves the reference to addressing worker health and safety concerns in the existing (b)(10). As part of today's rulemaking, the Agency proposes to consolidate the worker health and safety provisions presently in 300.57 and 300.71 in a new section 300.38. The reasoning behind this consolidation is discussed later in today's preamble. the existing (b)(10) has been renumbered as (b)(11), and the reference to the applicable section of the Plan has been amended to reflect this change.

The eighth change involves the addition of an OSC/RPM responsibility as a new paragraph (b)(13) for ensuring that the appropriate public and private interests are both kept informed and their concerns considered throughout a response. This change relates to the proposed addition of a new section 300.39 addressing public information during a response. There has always been an implicit responsibility for OSCs to address public information concerns; this change merely formalizes this responsibility.

The ninth change to this section involves the addition of specific responsibilities for the RPM in remedial actions as a new § 300.33(b)(14).

Section 300.34 Special forces and teams.

Discussion

Six changes to this section are proposed. These changes are necessary to correspond to proposed revisions in other sections of the Plan and to reflect present practices. Each proposed change is discussed below.

Specific Changes

The first change to this section is the incorporation of the new term RPM. References to RPM are proposed for 300.34 (a), (a)(2), (c)(2), (c)(4), (e), (f)(4)(i), (f)(4)(iii), (f)(4)(iv), and (b)(i). (Note that the current 300.34(f)(5) is proposed for renumbering as 300.34(f)(4)—see below.)

The second change to this section relates to the description of USCG Strike Team capabilities in paragraph (a)(1). The reference to ship salvage capability has been deleted since the U.S. Navy is the Federal agency most knowledgeable and experienced in ship salvage. This change corresponds with a proposed addition to 300.37, discussed later in today's preamble, addressing marine salvage. Also, reference to U.S. Navy

capability is included in the DOD agency capability statement added to 300.23(b). In addition, the word "shipboard" has been added in front of "damage control" to avoid any confusion with the term "damages" as defined in CERCLA.

The third change to this section is an editorial correction to paragraph (c)(1). The correct name of the ERT is the "Environmental Response Team", not "Emergency Response Team".

The fourth change to this section is a general update of the language in paragraph (d) describing the roles of the SSC. Reference to RPMs has been added and other minor changes have been made to reflect current practices. In addition, a reference to the agency that provides the SSC has been added.

The fifth change to this section clarifies language in paragraph (e) concerning the availability of the USCG Public Information Assist Team (PIAT) and EPA Public Affairs Assist Team (PAAT) to support OSCs and RPMs during a response. Existing language indicates that these teams are available during major responses. The Agency did not intend to limit use of these teams to major incidents only. To clarify this, changes are proposed to clearly indicate that these teams are available to the OSC or RPM any time outside public affairs support is necessary.

The final change to this section deletes paragraph (f)(2) which refers to what agency acts as chairman of the RRT during activation for a response. As discussed earlier in this preamble, this information has been moved to 300.32(b)(1).

Section 300.35 Multiregional responses.

Discussion

Three changes are proposed to incorporate the new term "RPM" in this section. In 300.35(b), "/RPM" is added after each of the three OSC references.

Section 300.36 Communications.

Discussion

One change is proposed to incorporate the new term "RPM" in this section. In 300.36(a), "/RPM" is added after the second OSC reference only.

Section 300.37 Special considerations.

Discussion

The Agency proposes to rename this section from "Response equipment" to "Special Considerations" and add a new paragraph (b) to address marine salvage. In 1982, the Marine Board of the Commission on Engineering and Technical Systems, National Research Council completed a study of marine salvage in the United States. One of the recommendations of this committee was that the NCP be amended to address marine salvage. This change adds a brief description of marine salvage activities. In addition, because marine salvage activities are complex, the language added encourages OSCs to request technical assistance from DOD to draw on their salvage expertise when involved in a response where marine salvage activities are undertaken.

Section 300.38 (Proposed New) Worker health and safety.

Discussion

The Agency proposes to replace § 300.71 of the current NCP, Worker Health and Safety, and § 300.57(a), Special Considerations, with a new § 300.38, Worker Health and Safety, to reflect the recommendations of an interagency work group which has studied the issue of providing for the protection of the health and safety of employees involved in response actions. The Agency also proposes that § 300.33(b)(10) be revised accordingly (see previous discussion). This amendment is not intended to preempt the Occupational Safety and health Administration [OSHA] from exercising its authority at response sites.

A. Introduction. In December of 1980, a Memorandum of Understanding was signed by the EPA, USCG, OSHA and the National Institute for Occupational Safety and Health, which set up a work group to deal with the health and safety of employees involved in hazardous waste site investigations, clean-up and hazardous substance emergencies. The conclusions of the Work Group form the basis for this revision to the NCP.

B. Conclusions and Recommendations to the Work Group. The work group concluded that the greatest employee safety and health protection currently available can best be provided by OSHA applying its safety and health regulations to hazardous substance response activities. The work group recommended that this approach be supplemented by the technical advice and assistance of qualified government and non-government personnel as needed, and by the comprehensive training of both workers and supervisors involved in hazardous substance response actions.

The work group recommended that continuing research should be conducted by both Government and nongovernment sources in the areas of open environment air monitoring technology, industrial hygiene and instrumentation, engineering controls and personal protective equipment, and in any related areas which serve to improve the safety and health protection of workers involved in hazardous substance response activities. It further recommended that the results of this research be made available to Federal, State, and local agencies as it is developed. The work group noted that the on-going effort to improve the protection afforded workers involved in hazardous substance response actions must not preclude the use of currently established methods for their protection.

The work group is preparing a "Occupational Safety and Health Guidance Manual for Superfund Activities." This guidance manual will provide governmental agency and private organization officials with the best information that the four Agencies have available on the subject of protecting workers involved in hazardous substance response actions. As new information becomes available, the manual will be updated to reflect relevant findings.

C. EPA Analysis and Conclusions. EPA believes that the work group's conclusions are sound as they apply to CERCLA response actions involving private sector employees and working conditions covered by the Occupational Safety and Health Act (OSH Act, 29 U.S.C. 651 *et seq.*). OSHA has promulgated safety and health regulations covering a wide variety of working conditions. These include the Occupational Safety and Health Standards (29 CFR Part 1910), commonly known as the General Industry Standards, the Safety and Health Regulations for Construction (29 CFR Part 1926) and, where applicable, the Shipyard and Longshoring Standards (29 CFR Parts 1915 and 1918) and OSHA Marine Terminal Regulations (29 CFR Part 1917). Many of the occupational safety and health hazards at response actions can be addressed effectively through application of OSHA standards. OSHA also has recordkeeping, reporting, and related regulations (29 CFR Part 1904). Moreover, OSHA enforcement expertise and available sanctions can be effective in encouraging compliance with these standards during response actions.

For purposes of the NCP, OSHA standards and policies will form the basis for worker safety and health protection; however, other safety and

health rules may apply. These include the following:

(1) As of February, 1984, 24 States operate OSHA-approved programs (State Plans) for occupational safety and health, pursuant to section 18 of the OSH Act. These operations, with respect to whether response actions in such States would need to comply with the State occupational safety and health requirements, would be subject to inspections by State OSH inspectors. (The State may choose not to cover CERCLA response activities, in which case jurisdiction reverts to Federal OSHA.)

(2) Federal agencies other than OSHA regulate worker safety and health for certain working conditions. Where an agency other then OSHA has statutory authority for regulating occupational safety and health and exercises that authority, OSHA is preempted under section 4(b)(1) of the OSH Act from applying its authorities to those working conditions. In some cases safety and health requirements of these other agencies could apply at sites of CERCLA response actions. For example, the Department of Transportation (DOT) has issued regulations requiring motor carriers to immobilize unattended motor vehicles. OSHA is precluded from issuing citations for hazards covered by these DOT standards.

The NCP modification recognizes these other Federal requirements and does not exclude their application and enforcement. This amendment is not intended to preempt OSHA from exercising its authority with respect to response actions.

(3) The occupational safety and health of Federal employees is provided for by their individual agencies. Section 19(a)(1) of the OSH Act requires these agencies to provide working conditions for their employees which are consistent with OSHA standards for private sector employees, and specific requirements with which Federal agencies must comply are set forth in Executive Order 12196 (45 FR 12769–12772, February 27, 1980) and 29 CFR Part 1960. OSHA evaluates the working conditions of Federal employees and Federal agencies' occupational safety and health programs.

(4) State and local government employees are not subject to Federal enforcement under the OSH Act; however, in the twenty-four States that have Federal OSHA-approved plans, States must ensure that State and local employees are provided working conditions consistent with the level of safety provided for private sector employees. Where such State plans exist, States have the right to inspect the working conditions of these employees and issue citations. In all non-plan States, State and local government workers are protected by whatever general provisions the State or local government has, if any, for the health and safety of its employees.

There may be hazardous situations at response actions that are not directly or completely covered by OSHA or other occupational safety and health standards. Nevertheless, under section (5)(a)(1) of the OSH Act employers have the general duty to furnish employees with a place of employment "* * * free from recognized hazards that are causing or are likely to cause death or serious physical harm." Under this provision of the OSH Act, OSHA may issue citations for hazards that may or may not be directly covered by an OSHA standard but which should not be allowed to continue.

Specific Changes

The Agency proposes to delete the existing language in §§ 300.57 and 300.71 addressing worker health and safety and to consolidate these requirements in a new § 300.38. This is being done to clarify the responsibilities of the OSC and RPM at a response. Differences in the language in §§ 300.57 and 300.71 of the present Plan has resulted in some confusion over the role of the OSC in ensuring worker health and safety in responses under subparts E and F. The Agency feels that the worker health and safety provisions apply equally to both oil and hazardous substance responses under the Plan, and consolidation of the worker health and safety provisions in one section should resolve this confusion.

The revisions also should clarify any confusion that exists concerning the responsibility of the OSC and RPM for the health and safety of workers at the response site. The revision makes it clear that each governmental agency and private employer is responsible for the health and safety of their own personnel. In a Federal Fund-financed response, the lead agency will be responsible for ensuring that a program to protect workers is made available and that workers at the scene of a response are apprised of the response site hazards and the provisions of the safety and health program at the scene, but responsibility for compliance with the program will rest with the government agency or private employer at the site. This is no different from present Agency guidance that requires a site safety plan for hazardous substance responses. The Federal Government is not assuming responsibility for individual workers.

Paragraph (b) of this new section tasks responsible parties at a non-Federal Fund-financed response with ensuring that response actions that they take include provisions for a safety and health program for their workers. The Agency believes that failure of a responsible party to ensure such measures could be considered an improper cleanup and allow action, including possible assumption of the cleanup, by the lead agency monitoring the response.

Section 300.39 (Proposed New) Public information.

Discussion

The Agency proposes to add a new § 300.39 to address public information at a response. Although public information has always been an OSC's responsibility, specific reference to this was deleted in the 1982 revision to the Plan. Since public information is such an important part of a response, the Agency feels that this general information should be included in the Plan and apply to responses under both subparts E and F. This change corresponds to revisions to subpart F also being proposed in today's rulemaking that address community relations at hazardous substance responses.

Paragraph (a) of this new section tasks OSCs, RPMs, and agency community relations personnel with ensuring that all appropriate public and private interests are kept informed and their concerns considered throughout a response. The Agency believes that it is essential to provide the public prompt, accurate information on the nature of an incident and the actions underway to mitigate any damage.

Paragraph (b) of this new section addresses the coordination of media relations. This paragraph outlines the establishment of an on-scene news office to coordinate media relations and issue official Federal information. During a large response, there may be a need for participating Federal agencies to make their own press releases or respond to media inquiries. It is essential that these actions be coordinated with the OSC or RPM, thus a requirement has been added that all Federal press releases or statements be cleared through the OSC or RPM. Regional Attorneys should also clear such releases or statements when EPA is the lead Agency. EPA OSC/RPMs have easy access to Regional Attorneys and usually have had experience working with these attorneys. Coast Guard or other non-EPA OSC/RPMs do not have to clear such releases or

statements through the Regional Attorneys. This is consistent with previous guidance in the Plan that was deleted in the 1982 revision.

Section 300.40 [Proposed New) OSC reports.

Discussion

The Agency proposes to create a new § 300.40 titled "OSC Reports", to move the report requirements presently in § 300.56 to this new section, and to revise this section to apply to both discharges of oil and releases of hazardous substances, pollutants, or contaminants. A change in the title of the section from "Pollution reports" to "OSC reports" is proposed to reflect the common name of these reports. The term "pollution reports" or "polreps" usually refers to frequent status reports filed by the OSC during the course of an incident.

Existing language in § 300.69 of the Plan has provisions for documenting incidents involving hazardous substances, but no specific format is required. This change will standardize the report format requirements for both subparts E and F. Reports will be required for all incidents classified as major by the OSC and for any other incident when requested by the RRT. In addition, changes proposed to 300.69 in today's rulemaking will require the completion of an OSC report for all CERCLA Fund-financed removal actions.

In addition to this significant change, six minor changes are proposed to the report format. Three changes add the terms "release" or "hazardous substance, pollutant, or contaminant" to account for the applicability to subpart F. The other three changes add requirements for documenting State participation, impacts of the discharge or release on natural resources, and public information/community relations activities.

Subpart D

Section 300.42 Regional contingency plans.

One change is proposed to incorporate the new term "RPM" in subpart D. In § 300.42(b), "RPM" is added after OSC.

Subpart E

Section 300.51 Phase I—Discovery and notification.

Discussion

The Agency proposed one change to subsection (b) concerning reporting of oil discharges. This change parallels a proposed change to § 300.63 discussed later in today's preamble concerning reporting of hazardous substance releases. Existing language in subsection (b) indicates that reports of oil discharges should be made to either the NRC or to the nearest USCG or EPA office. Any report not made directly to the NRC must be relayed to the NRC if not previously reported to the predesigned OSC. This language is based on regulations in 33 CFR Part 153 for reporting of oil discharges as required by the Clean Water Act. These provisions have resulted in a significant number of reports being received at locations other than the NRC. While in most cases this does not delay Federal response actions, it has been difficult for the USCG and EPA to determine the actual number of discharges that have occurred. In many cases, responsible parties notify both the NRC and the predesignated OSC, thus resulting in duplication of effort. The proposed regulations require reporting to the NRC unless direct reporting is impractical. In such cases, reports can be made to the predesignated USCG or EPA OSC, any USCG unit, or a USCG district office. The Agency believes that direct reporting to the NRC is the most effective and efficient means of facilitating government response action. With existing communications systems, OSCs are normally notified of discharge reports within 15 minutes of their receipt by the NRC.

The Agency proposed to amend subsection (b) to require all reports be made to the NRC unless direct reporting is impractical. An example of such a situation would be a vessel at sea, where a telephone is not available. In such cases, reporting to the nearest USCG unit or a predesignated OSC at the nearest EPA regional office will be authorized, and these locations will relay the information to the NRC. This should result in all discharge reports being recorded at the NRC. The Agency believes that direct reporting to the NRC is the best means of ensuring that the appropriate USCG or EPA OSC is rapidly notified of a discharge. Reports to any other locations may result in delays in relaying the information to the OSC. In addition, collecting all reports at the NRC will provide the USCG and EPA with accurate statistics on the frequency and location of oil discharges and allow for efficient allocation of resources to address such incidents.

The Coast Guard intends to amend the reporting regulations in 33 CFR Part 153 to reflect these revisions if this proposal is adopted. The Agency solicits comments on this proposed modification to reporting procedures.

Section 300.52 Phase II—Preliminary assessment and initiation of action.

Discussion

The Agency proposes one change to paragraph (d) concerning notification of natural resource trustees. These trustees require early notification of incidents that may have affected natural resources. In many instances, there may be impacts that are not readily apparent to the OSC, but could be determined by using the expertise of the resource trustee. This change encourages OSCs to consult with the natural resource trustee when practical for assistance in determining if resources have been damaged by an oil discharge.

Section 300.54 Documentation and cost recovery.

Discussion

Two changes are proposed to this section. The first change adds a requirement in paragraph (b) for OSCs to submit OSC reports. This corresponds to the previous discussion on moving the report requirements to 300.40.

The second change concerns the availability of documentation to natural resource trustees. Existing language in (b) states that documentation should be made available where practicable. The Agency did not intend to limit the trustee's access to this documentation. To clarify this, the words "where practicable" have been deleted.

Section 300.56 [Reserved]

Discussion

As discussed above, the Agency proposes to move the OSC report requirements to a new § 300.40 in subpart C. This new section will apply to both oil and hazardous substance incidents. The specific requirement for OSC reports for oil discharges has been added to 300.54. As a result, § 300.56 will be designated as "Reserved."

Section 300.57 Waterfowl conservation.

Discussion

As discussed above, the Agency proposes to consolidate the worker health and safety considerations in a new § 300.38. In conjunction with this change, paragraph (a) of this section will be deleted, § 300.57 renamed "Waterfowl Conservation", and the current lettering and title of the remaining paragraph (i.e., (b) Waterfowl Conservation) will be deleted.

Section 300.58 Funding.

Discussion

The Agency proposes to add language to paragraph (b) addressing reimbursement of Federal agencies for OSC support. Federal agencies have been called upon by the OSC in many situations to provide support that goes beyond program authorities for these agencies. In addition, some of this assistance results in the Federal agency incurring expenses that should be reimbursable. The Agency agrees with this. Procedures already exist in 33 CFR Part 153 for reimbursement to Federal agencies from the 311(k) Fund for certain costs incurred while providing assistance requested by the OSC. The change proposed to paragraph (b) will add specific reference to this procedures.

Subpart F

Section 300.61 General.

Discussion

This section describes various principles generally applicable to subpart F of the plan. The modifications proposed to this section are minor and are intended to clarify certain provisions and make them consistent with the rest of the Plan. Major modifications to subpart F are discussed in section II.

Specfic Changes

CERCLA section 104(a)(1) authorizes response unless the Agency determines that the response action be done properly by a responsible party. The Agency considers the timeliness of the response to be an important factor in determining whether the response will be conducted properly. Therefore, in § 300.61(b), EPA proposes stating that the responsible party response must be conducted in a timely fashion, or Fund-financed response action may be authorized. This clarifies existing EPA policy that the reponsible party seeking to conduct the site response must initiate and complete the response in a timely fashion or the Fund may be engaged to remedy the threats posed by the site.

In § 300.61(c) the Agency has added two additional factors to help coordinate and speed site response. These include involving the Regional Response Team (RRT) and encouraging the establishment of private organizations to aid in site response. As stated previously, the Agency believes that the RRT can help coordinate response measures when several Federal agencies are involved in the response and wants to advocate the use of the group. Private organizations, as outlined in § 300.71 of this proposal, may provide useful services in accelerating site response. In addition, § 300.61(c) allows the response personnel to consider alternative or innovative technology in developing the cost-effective response.

Section 300.61(d) has been amended to specify that the lead agency will provide surveillance of responsible party actions, where practicable. This codifies existing operating procedures under which the lead agency will generally oversee response actions, which will tend to assure adequate protection of public health, welfare and the environment.

Where surveillance indicates that necessary and proper response actions are not being taken, the lead agency may complete the remaining response actions. The responsible parties will be liable for any response costs resulting from surveillance and/or completion of response actions.

Finally, an important addition is being proposed in § 300.61(e). CERCLA section 107 states that persons may bring actions for recovery of costs incurred consistent with the NCP. (The Federal and State governments may recover for costs incurred "not consistent" with the Plan.) Section 107 does not limit such liability to only those costs incurred at those sites listed on the NPL. However, some question has arisen whether a site must be listed on the NPL for an action to be consistent with the NCP for purposes of recovery of costs by private parties and States. EPA proposes to clarify this issue and other issues in subsection (e). This subsection states that subpart F does not establish any preconditions to any enforcement action; nor does it limit the rights of any person to seek recovery of non Fund-financed response costs from responsible parties pursuant to CERCLA §107, except as provided in § 300.71. In addition, the subsection states that actions in implementing subpart F are discretionary and that subpart F does not create any rights to any Federal actions.

Section 300.62 State role.

Discussion

Several minor additions and clarifications are proposed in this section. The procedures and requirements outlined in this section require little modification.

Section 300.62(a)(1) has been amended to clarify that various agencies of the Federal Government may enter into contracts and cooperative agreements. The prior omission of the USCG, FEMA & HHS which have such authority, from this subsection was an oversight.

Proposed subsection (a)(2) specifies that cooperative agreements are unnecessary for State response and other actions that are not Fund-financed. Coordination with EPA or USCG is encouraged, however. Superfund State contracts and cooperative agreements are intended to facilitate coordination between the Federal and State governments. Where a Federal role is not required because the Fund is not involved, a contract or agreement is unnecessary. Likewise, the subsection clarifies that for any other party actions, such Superfund State contracts and agreements are not required.

However, if a State wants its expenditures for response actions taken at a site to count as part of its required cost-share match, a cooperative agreement or contract must be executed for this purpose.

The Agency is aware that some confusion may exist concerning the implications of State cooperative agreements or contracts. In subsection (c) language has been added to clarify that State cooperative agreements or contracts are not a precondition to enforcement action or cost-recovery pursuant to CERCLA section 107. This language reinforces the new proposed language in § 300.61(e) and § 300.71.

Section 300.62(d) has been changed to require that the State provide a firm commitment and funding only prior to *remedial action*. This reflects Agency policy not to require these commitments for remedial design and remedial planning activities.

Proposed subsection (h) recognizes the roles that State and local safety organizations currently play in response actions. Such organizations are expected to initiate public safety measures deemed necessary to protect public health and welfare of local populations. This language reflects the role State and local governments perform at this time, in undertaking evacuation and limiting public access when necessary.

Section 300.63 Discovery and notification.

Discussion

Three changes are proposed to revise subsections (b) and (c) concerning reporting of hazardous substance releases. This proposed revision will establish consistent reporting requirements for both oil discharges and hazardous substance releases and parallels a proposed revision to 300.51

discussed earlier in today's preamble. Existing language in subsection (b) requires all reports of hazardous substance releases be made to the NRC. In addition, EPA's soon to be promulgated Superfund Notification Rule, 40 CFR Part 302, provides that all reporting of releases pursuant to CERCLA section 103 (a) and (b) be made to the NRC. Since the requirement to provide notice only to the NRC was adopted in the NCP in 1982, EPA has received several requests to consider alternate reporting provision to account for situations when direct reporting to the NRC may not be practicable, such as releases from ships at sea. The Agency considered modifying the Superfund Notification Rule, 40 CFR Part 302 to provide for reporting to other than the NRC in some limited circumstances, but decided to defer consideration of such a change until this rulemaking in order to allow additional public comment and to assure that if such a change were adopted, appropriate mechanisms were in place so that even when initial notice was provided to other than the NRC, the NRC would receive notification in a timely manner. This requirement is based on the statutory language in section 103(a) of CERCLA that notice be provided to the NRC.

The Agency proposes to amend subsection (b) to require all reports be made to the NRC unless direct reporting is impractical. In such cases, reporting to a predesignated OSC at the nearest USCG office or EPA Regional Office will be authorized, and these officials are given the responsibility to relay the information to the NRC.

The Agency believes that authorizing initial reporting to the OSC is consistent with the intent of 103(a), as long as there is assurance that the report is subsequently relayed to the NRC, and that making the report to the OSC does not delay any necessary response. EPA believes that providing for initial notice to the OSC as discussed above would be consistent with this intent, yet would provide additional flexibility in those situations where reporting directly to the NRC is impractical. These situations will be limited, so most reports will still be made directly to the NRC.

The Agency intends to amend the reporting regulations in 40 CFR Parts 117 and 302 to reflect these revisions if this proposal is adopted and solicits comments on this proposed modification to reporting procedures. Pending adoption of this proposal to allow reporting to the OSC, in some limited circumstances, the requirement in § 300.63 and in the Superfund Notification Rule, 40 CFR Part 302 remain in effect.

A second change proposed to this section involves notification to States. Existing language in subsection (b) indicates that the NRC shall notify the Governor of a State affected by a release. This conflicts with existing procedures where reports to the States are made by the OSC or the lead agency. The Agency believes that the OSC or lead agency is in the best position to be familiar with State organizations that require notification. Revisions are proposed to subsection (c) to reflect that notifications to States will be made by the OSC or lead agency.

A third change proposed is the addition of a new subsection (d). The purpose of this addition is to clarify who should conduct further analysis of the release, based on the level of threat posed. If the notification indicates that a release may require response action under § 300.65, a preliminary assessment pursuant to § 300.64 should be initiated as soon as possible. If such response action is not likely to be required, a less detailed preliminary assessment pursuant to section 300.66 should be conducted. The Agency believes that this language will aid in clarifying confusion over the degree of preliminary assessment to be conducted, and when such assessments should be conducted.

Section 300.64 Preliminary assessment for removal actions.

Discussion

There are two types of preliminary assessment: One for removal actions and one for remedial responses. The preliminary assessment for remedial action is at times less comprehensive than the preliminary assessment for removal since less immediate threats will be more comprehensively evaluated during a site investiagion.

This section clarifies some confusion that has arisen over the level of preliminary assessment to be conducted. The title of this section has been changed to clarify that it applies only to removal preliminary assessment.

Specific Changes

In subsection (a), the statement that "Other releases shall be assessed as soon as practicable" has been deleted. This sentence was deleted so that the section would only apply to releases that may present a problem needing a removal, consistent with the title change.

The existing section does not address when it is appropriate to request input from HHS on public health issues. Proposed subsection (a) clarifies that the OSC may request HHS to evaluate the public health threat posed by the release if it would be helpful in determining the need for removal action.

The revised language includes a provision for notification of the natural resource trustee if resources may have been damaged. A new subsection (d) has been added that requires the OSC to notify the trustee if the preliminary assessment indicates that natural resources damage may have occurred. This seciton has been added to ensure that the trustee is award of possible damage at an early stage in the investigation and is able to initiate appropriate action.

The section also recognizes that damage may not be readily apparent to the OSC/RPM and encourages the OSC/RPM to seek the expertise of the natural resource trustee in determining if any damage exists. A complementary section on notification of trustees has also been inserted in § 300.69. Section 300.65 and § 300.66 were discussed in Section II.

Section 300.67 Community Relations.

Discussion

Section 300.67 is a new section. Experience gained during the early years of the program has shown that a strong community relations component is an important aspect of a successful cleanup program. The purpose of the community relations program is to provide communities with accurate information about problems posed by releases of hazardous substances, and give local officials and citizens the opportunity to comment on the technical solutions to the site problems.

Specific Changes

Subsection (a) requires that all removal actions pursuant to 300.65 and all remedial actions at NPL sites including enforcement actions, must have a formal community relations plan, except for short term or urgent removal actions or urgent enforcement actions. A formal plan will not be required for remedial response actions not listed on the NPL. This reflects current operating procedures and may encourage and expedite private and responsible parties responses to releases not listed on the NPL. In addition, because most USCG spill responses are removal situations, USCG will rarely be required to prepare a formal plan. Current USCG procedures will continue to be followed for spill incidents. The Agency's community relations guidance provides guidance in determining whether or not a plan is

necesssary for other removals or urgent enforcement actions. The Office of Emergency and Remedial Response may be contacted for copies of the guidance and propose updates.

The formal plan, based on discussions with citizens in the community, should include the following: A description of the site location and history; a thorough discussion of the history of community relations activities and a summary of recent citizen issues; site specific community relations objectives and communication activities; and a community relations workplan, staffing plan, budget and mailing list. Such plans should be reviewed by the public. The use of the RRT to assist community relations activities should be considered in developing such plans.

Subsection (b) states that in the case of actions posing a threat pursuant to § 300.65(b), or enforcement actions to compel response analogous to § 300.65 or other short term action to abate a threat to public health, welfare or the environment, a spokesperson will be designated to provide the community with information on the release and the response. This reflects current operating procedures in emergency situations. No new method of operation or procedures is contemplated by this section.

Subsection (c) is directed to the timing of the community relations plan for remedial actions at NPL releases including, Fund-financed and enforcement actions. This section reflects EPA's community relations guidance document and states that plans should be developed and implementation begun prior to field activities. This subsection also states that, in certain cases, the responsible party may develop and implement specific parts of the community relations plan with lead agency oversight. This will conserve Agency resources and may result in more responsible parties coming forward to correct past hazardous waste releases.

Section (d) states that the minimum public comment period allowed for review of feasibility studies for remedial actions at NPL releases shall be 21 calendar days. The comment period is to be held prior to final selection of the remedy and allows for effective community and responsible party input into the decision-making process. The public may also have the opportunity to comment during the development of the feasibility study. This will provide the public with advance warning as to possible remedial alternatives.

This public involvement is an important component of the administrative record development by the Agency in support of the remedy selected. For this reason, the Agency expects that all concerns regarding the cleanup be raised during this period by all affected parties.

Subsection (e) requires that a responsiveness summary be included in the record of decision, addressing the major issues raised by the community. The Agency believes a summary of major comments will be helpful in explaining how the Agency has taken the comments into account in reaching its final decision.

As noted earlier, the consent decree reached in the litigation with the Environmental Defense Fund concerning the NCP requires EPA to propose amendments to the NCP to . . . (c) provide comparable public participation for private-party response measures taken pursuant to enforcement actions. Thus, the provisions for public review of RI/FS in enforcement actions are comparable to those required for Fund-financed cleanup, and responsiveness summaries are required for enforcement actions as well as Fund-financed actions.

The lead agency in appropriate circumstances may schedule additional meetings involving potentially responsible parties and a limited number of representatives of the public, where these representatives have adequate legal and technical capability and can provide appropriate assurances concerning any confidential information that may arise during the discussions, if in the judgment of the lead Agency such meetings may facilitate resolution of issues involving the appropriate remedy at the site.

Two revisions are proposed to § 300.69. The first adds a requirement for the completion of OSC reports for all major releases and all Fund-financed removals. The second change adds language addressing the reimbursement of Federal agencies for costs incurred during a response.

Revisions of § 300.68 and § 330.71 were discussed in section II of this preamble.

Subpart G

Section 300.72 Designation of Federal Trustees.

The Agency proposes one minor change to correct a typographical error in subparagraph (b)(1) of this section. The word "in" at the end of line 4 is replaced by "or."

Section 300.73 State Trustee.

The change proposed in the first sentence is to simplify and consolidate the several references to CERCLA sections into a single general reference to CERCLA provisions for State trustees.

CERCLA Section 111 provides that:

(h)(1) In accordance with regulations promulgated under section 301(c) of this Act, damages for injury to, destruction of, or loss of natural resources resulting from a release of a hazardous substance, for the purposes of this Act and section 311(f) (4) and (5) of the Federal Water Pollution Control Act, shall be assessed by Federal officials designated by the President under the National Contingency Plan published under section 105 of the Act, and such officials shall act for the President as trustee under this section and section 311(f)(5) of the Federal Water Pollution Control Act.

(2) Any determination or assessment of damages for injury to, destruction of, or loss of natural resources for the purposes of this Act and section 311(f) (4) and (5) of the Federal Water Pollution Control Act shall have the force and effect of a rebuttable presumption on behalf of any claimant (including a trustee under section 107 of this Act or a Federal agency) in any judicial or adjudicatory administrative proceeding under this Act or section 311 of the Federal Water Pollution Control Act.

The Agency is considering whether to adopt one of three possible approaches with respect to the assessment of damages for injury to, destruction or loss of any State natural resources within its borders, belonging to, managed by or appertaining to such State.

The first approach is to amend this section to designate Federal officials who, as appropriate, could perform assessments of State natural resource damages at the request of State trustees. States could also perform assessments, however, only Federal assessments, performed in accordance with the regulations required by section 301(c) of CERCLA, would be entitled to the rebuttable presumption established in section 111(h)(2) of CERCLA.

The second approach would be that only States would perform assessments of damages for injury to, destruction or loss of any State natural resources and such assessments would be entitled to the rebuttable presumption in § 111(h)(2).

The final approach would be that only States would perform assessments of damages for injury to, destruction or loss of any State natural resources. Such assessments however, would be entitled to the rebuttable presumption in § 111(h)(2) only where they are performed in accordance with

regulations promulgated under section 301(c) of CERCLA.

The Agency requests on these various approaches.

Subpart H

Use of Dispersants and Other Chemicals.

Discussion

The Agency is proposing several changes to subpart H as promulgated in the **Federal Register** on July 18, 1984 (49 FR 29192).

In the preamble to the current subpart H, the statement was made that the SSC in inland areas was generally the DOI. Although the NCP, as promulgated on July 16, 1982 (47 FR 31208 stated that generally the SSC for the inland areas will be provided by EPA or DOI, today's proposed revisions delete the reference to DOI. As a matter of practice, the SSC for inland areas is normally provided by EPA. This change reflects current practice, although SSCs may be obtained from other agencies if determined to be appropriate by the RRT.

The Agency would also like to clarify its position on the authorization and consultation process for using dispersants, surface collecting agents, burning agents, or biological additives on oil discharged into navigable waters. Under § 300.84 (a) and (b) of the current subpart H (49 FR 20197, July 18, 1984), the OSC must obtain the concurrence of the EPA representative to the RRT and the concurrence of the States with jurisdiction over the navigable waters polluted by the oil discharge prior to authorizing the use of a product on the NCP Product Schedule. This provision will remain unchanged. However, a statement is proposed as an addition to subsections (a) and (b) to indicate that the OSC should consult with appropriate Federal agencies as practicable when considering the use of such products on an oil discharge. A similar change to § 300.84(b), burning agents will be made.

Section 300.84(e) which permits the OSC to authorize the use of such products without obtaining the concurrence of the EPA RRT representatives or the States if the RRT and the States with jurisdiction over the waters of the area approve in advance the use of certain products on the schedule. An addition is proposed to the last sentence in § 300.84(e) to allow use under such circumstances without consultation with other appropriate Federal agencies.

IV. Economic Impacts of Proposed NCP Revisions

The incremental economic effect of each of the proposed revisions is defined as the economic changes that may result from the revision compared to the current Superfund program without the revision. Some of the revisions have already been instituted as policy changes in the Superfund program and are being proposed as changes to the NCP for the purposes of consistency. These revisions can thus be considered not to result in economic effects when compared to the current NCP.

There are four major proposed revisions to the NCP. They are as follows:

- Eliminate planned removals and initial remedial measures as distinct response categories. Revise the provisions to establish one category of removal action to be accomplished in response to a threat to public health, welfare, or environment;
- Add explicit requirements for community relations programs and public comment at Fund-financed and enforcement responses;
- Explicitly require use of existing Federal public health and environmental standards, where applicable or relevant in selecting the appropriate remedy;
- Provide for listing of releases on the NPL which, while not meeting HRS criteria pose significant public health threats.

The anticipated effects and the proposed revisions are listed below:

1. In the current NCP, §§ 300.65 and 300.67 authorize two categories of removal action: immediate and planned. Section 300.68 authorizes IRMs to be taken as a part of a remedial action. The criteria for taking IRMs are similar to those for planned removals, except that IRMs must be cost-effective. Both planned removals and IRMs require State cost-sharing. The proposed revisions eliminate planned removal and IRM categories and expand the category of removals and modify the standard for taking action.

The anticipated effects of this proposed revision are as follows:

The State costs will be reduced, with a corresponding increase in demand on the Fund. With 60 projected planned removals and 104 projected IRMs expected to be reclassified as removals over a 6-year period, cost savings to States will be about $4.9 million (undiscounted FY 84 dollars). Increased demand of $4.9 million on the Fund could reduce funds available at one remedial response that might otherwise have been conducted. The revision may accelerate removal and remedial activity, thereby increasing costs to responsible parties and reducing health and environmental risks of exposure to hazardous substances and possibly reduce the longer term costs because of quicker response. States will also save the costs of preparing cooperative agreements in the case of reclassified removal actions.

2. In the current NCP, § 300.61(c)(3) states that, to the extent practicable, response personnel should be sensitive to local community concerns in accordance with applicable guidance.

The proposed revisions define major Superfund community relations program requirements and require response personnel to conduct a public comment period on draft feasibility studies.

The anticipated effects are minor. Full compliance may increase response costs slightly, particularly administrative costs to EPA and local governments, with a corresponding increase in costs to responsible parties. Greater public involvement may expedite response process in some cases, thereby offsetting any costs caused by delays.

3. In the current NCP use of existing EPA or other Federal standards is not explicitly discussed, except in the preamble.

The proposed revisions explicitly require the use of existing Federal public health and environmental standards in selecting the appropriate remedy, where such standards are applicable or relevant, with limited exceptions. Risk assessments are required where no standards are applicable or relevant. Under current operating procedures, we are generally meeting standards because we believe they generally define adequate protection of health and the environment.

The anticipated effects of this revision are as follows:

Some additional costs may be incurred by EPA in making necessary determinations and performing analyses. The magnitude of these effects will be estimated as guidance or policy is developed.

4. In the current NCP § 300.66 establishes the listing process for the NPL. Currently, EPA policy requires an HRS score of 28.50 to be added to the NPL.

The proposed revisions allow releases for which an HHS health advisory has been issued to be listed on the NPL.

The anticipated effects of this revision are as follows:

The effects depend upon the number of sites listed using the criteria. Costs to States and responsible parties will increase, but the magnitude of this

increase cannot be estimated accurately. Because sites so listed will have potentially major public health impacts, the proposed changes will give the Agency broader authority to undertake remedial action to protect public health and the environment. Given limited Fund size, listing of these sites will replace, rather than supplement, funds spent on other sites, resulting in no net economic impacts.

The anticipated effects of all of the revisions are as follows:

State costs will be reduced, with a corresponding increase in demands on the Fund. With a total of 356 Fund-financed RI/FS (320 at private sites), projected over FY 84–89 period, and 247 Fund-financed remedial designs projected over the same period (222 at private facilities), total cost savings to States will be about $30 million (FY 84 dollars). Increased demand of $30 million on the Fund could decrease by about 4 the number of sites that might otherwise receive remedial response. The policy change may accelerate remedial activities by removing the State cost-share requirement, resulting in earlier reduced risks of exposure to hazardous substances.

V. Summary of Supporting Analyses

A. Classification Under E.O. 12291

Proposed regulations must be classified as major or nonmajor to satisfy the rulemaking protocol established by Executive Order 12291. E.O. 12291 establishes the following criteria for a regulation to qualify as a major rule:

1. An annual effect on the economy of $100 million or more;

2. A major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies or geographic regions; or

3. Significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The proposed NCP is a nonmajor rule because it would have no significant incremental economic effects. To the extent that economic impacts do occur, they are likely to be positive.

This regulation was submitted to OMB for review under Executive Order 12291.

B. Regulatory Flexibility Act

In accordance with the Regulatory Flexibility Act of 1980, Agencies must evaluate the effects of a proposed regulation on "small entities." That Act recognizes three types of such entities:

1. Small businesses (specified by Small Business Administration regulations);

2. Small organizations (independently owned, nondominant in their field, nonprofit); and

3. Small governmental jurisdictions (serving communities with fewer than 5,000 people).

If the proposed rule is likely to have a "significant impact on a substantial number of small entities," the Act requires that a Regulatory Flexibility Analysis be performed. EPA certifies that the NCP will not have a significant impact on a substantial number of small entities. To the extent that impacts on small entities occur, they are likely to be positive.

Small businesses and small organizations will generally be affected only by the proposed changes that address enforcement actions. These changes in the NCP generally codify existing enforcement policies (e.g., proposed changes to require enforcement responses to comply with applicable or relevant federally enforceable environmental standards) and therefore modifying the NCP will not impose any additional burden on small entities subject to enforcement actions. Although requiring community relations plans (CRPs) at most enforcement responses will increase responsible party costs, these costs are small (averaging $6,000) relative to response costs and may save costs by expediting the response process. Moreover, it is a matter of Agency discretion whether to proceed with enforcement actions against small entities that may be significantly affected by such actions. Therefore, there are no necessary adverse impacts on small businesses and organizations directly associated with the NCP.

The proposed changes may affect some small government jurisdictions, but most of the effects are likely to be positive. For example, the proposed change to mandate CRPs may reduce the burden on small government jurisdictions by providing an efficient vehicle for the local government involvement.

C. Paperwork Reduction Act

Today's proposed rule does not impose any regulatory burden on parties outside of EPA, including any reporting or information collection requirements.

VI. Lists of Subjects in 40 CFR Part 300

Air pollution control, Chemicals, Hazardous materials, Hazardous substances, Intergovernmental relations, National resources, Occupational safety and health, Oil pollution, Reporting and record keeping requirements, Superfund, Waste treatment and disposal, Water pollution control, Water supply.

For the reasons set forth in the preamble, Part 300, Subpart J, Chapter I of Title 40, Code of Federal Regulations, is amended as follows:

1. The authority citation for Part 300 reads as follows:

Authority: Sec. 105 Pub. L. 96–510, 94 Stat. 2764, 42 U.S.C. 9605; Sec. 311(c)(2), Pub. L. 92–500 as amended, 86 Stat. 865, 33 U.S.C. 1321 (c)(2); E.O. 12316, 46 FR 42237; E.O. 11735, 38 FR 21243.

Dated: January 25, 1985.

Lee M. Thomas,

Acting Administrator.

1. 40 CFR Part 300 (Subparts A–G) is revised as follows (Appendix A is republished without change for reader convenience):

PART 300—NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

Subpart A—Introduction

Subpart B—Responsibility

Subpart C—Organization

Subpart D—Plans

Subpart E—Operational Response Phases for Oil Removal

Authority: Sec. 105, Pub. L. 96-510, 94 Stat. 2764, 42 U.S.C. 9605 and sec. 311(c)(2), Pub. L. 92-500, as amended: 86 Stat. 865, 33 U.S.C. 1321(c)(2): Executive Order 12316, 47 FR 42237 (August 20, 1981); Executive Order 11735, 38 FR 21243 (August 1973).

Subpart A—Introduction

§ 300.1 Purpose and objectives.

The purpose of the National Oil and Hazardous Substances Pollution Contingency Plan (Plan) is to effectuate the response powers and responsibilities created by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the authorities established by section 311 of the Clean Water Act (CWA), as amended.

§ 300.2 Authority.

The Plan is required by section 105 of CERCLA, 42 U.S.C. 9605, and by section 311(c)(2) of the CWA, as amended, 33 U.S.C. 1321(c)(2). In Executive Order 12316 (46 FR 42237) the President delegated to the Environmental Protection Agency the responsibility for the amendment of the NCP and all of the other functions vested in the President by section 105 of CERCLA. Amendments to the NCP shall be coordinated with members of the National Response Team prior to publication for notice and comment including the Federal Emergency Management Agency and the Nuclear Regulatory Commission in order to avoid inconsistent or duplicative requirements in the emergency planning responsibilities of those agencies.

§ 300.3 Scope.

(a) The Plan applies to all Federal agencies and is in effect for:

(1) The navigable waters of the United States and adjoining shorelines, for the contiguous zone, and the high seas beyond the contiguous zone in connection with activities under the Outer Contintental Shelf Lands Act or the Deep Water Port Act of 1974, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States (including resources under the Fishery Conservation and Management Act of 1976). (See sections 311(b)(1) and 502(7) of the Clean Water Act.)

(2) Releases or substantial threats of releases of hazardous substances into the environment, and releases or substantial threats of releases of pollutants or contaminants which may present an imminent and substantial danger to public health or welfare.

(b) The Plan provides for efficient, coordinated and effective response to discharge of oil and releases of hazardous substances, pollutants and contaminants in accordance with the authorities of CERCLA and the CWA. It provides for:

(1) Division and specification of responsibilities among the Federal, State, and local governments in response actions, and appropriate roles for private entities.

(2) The national response organization that may be brought to bear in response actions, including description of the organization, response personnel and resources that are available to respond.

(3) The establishment of requirements for Federal regional and Federal local contingency Plans, and encouragement of preplanning for response by other levels of government.

(4) Procedures for undertaking removal operations pursuant to section 311 of the Clean Water Act.

(5) Procedures for undertaking response operations pursuant to CERCLA.

(6) Designation of trustees for natural resources for purposes of CERCLA.

(7) National policies and procedures for the use of dispersants and other chemicals in removal and response actions.

(c) In implementing this Plan, consideration shall be given to the Joint Canada/U.S. Contingency Plan; the U.S./Mexico Joint Contingency Plan and international assistance plans and agreements, security regulations and responsibilities based on international agreements, Federal statutes and executive orders. Actions taken pursuant to this Plan shall conform to the provisions of international joint contingency Plans, where they are applicable. The Department of State should be consulted prior to taking any action which may affect its activities.

§ 300.4 Application.

The Plan is applicable to response taken pursuant to the authorities under CERCLA and section 311 of the CWA.

§ 300.5 Abbreviations.

(a) Department and Agency Title Abbreviations.

DOC—Department of Commerce
DOD—Department of Defense
DOE—Department of Energy
DOI—Department of the Interior
DOJ—Department of Justice
DOL—Department of Labor
DOS—Department of State
DOT—Department of Transportation
EPA—Environmental Protection Agency
FEMA—Federal Emergency Management Agency
HHS—Department of Health and Human Services
NIOSH—National Institute for Occupational Safety and Health
NOAA—National Oceanic and Atmospheric Administration
USCG—U.S. Coast Guard

(1) Operational Title Abbreviations.

ERT—Environmental Response Team
FCO—Federal Coordinating Officer
NRC—National Response Center
NRT—National Response Team
NSF—National Strike Force
OSC—On-Scene Coordinator
PATT—Public Affairs Assist Team
PIAT—Public Information Assist Team
RPM—Remedial Project Manager
RRC—Regional Response Center
RRT—Regional Response Team
SSC—Scientific Support Coordinator

§ 300.6 Definitions.

Terms not defined in this section have the meaning given by CERCLA or the CWA.

Activation means notification by telephone or other expeditious manner or, when required, the assembly of some or all appropriate members of the RRT or NRT.

Claim, as defined by section 101(4) of CERCLA, means a demand in writing for a sum certain.

CERCLA or "Superfund", is the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

Coastal waters, for the purposes of classifying the size of discharges, means the waters of the coastal zone except for

the Great Lakes and specified ports and harbors on inland rivers.

Coastal zone, as defined for the purpose of this Plan, means all U.S. waters subject to the tide, U.S. waters of the Great Lakes, specified ports and harbors on the inland rivers, waters of the contiguous zone, other waters of the high seas subject to this Plan, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of Federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in Federal regional contingency plans.

Contiguous zone means the zone of the high seas, established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone, which is contiguous to the territorial sea and which extends nine miles seaward from the outer limit of the territorial sea.

Discharge, as defined by section 311(a)(2) of CWA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping of oil. For purposes of this Plan, discharge shall also mean substantial threat or discharge.

Drinking water supply, as defined by section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system (as defined in the Safe Drinking Water Act) or as drinking water by one or more individuals.

Environment, as defined by section 101(8) of CERCLA, means (a) the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the U.S. under the Fishery Conservation and Management Act of 1976, and (b) any other surface water, ground water, drinking water supply, land surface and subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

Facility, as defined by section 101(9) of CERCLA, means (a) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or (b) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

Feasibility study, is a process undertaken by the lead agency (or responsible party if the responsible party will be developing a clean-up proposal) for developing, evaluating and selecting remedial actions which emphasizes data analysis. The feasibility study is generally performed concurrently and in an interdependent fashion with the Remedial Investigation. In certain situations, the Agency may require potential responsible parties to conclude initial phases of the remedial investigation prior to initiation of the feasibility study. The Feasibility study process uses data gathered during the remedial investigation. This data is used to define the objectives of the response action and to broadly develop remedial action alternatives. Next, an initial screening of these alternatives is required to reduce the number of alternatives to a workable number. Finally, the feasibility study involves a detailed analysis of a limited number of alternatives which remain after the initial screening stage. The factors that are considered in screening and analyzing the alternatives are public health, economics, engineering practically, environmental impacts and institutional issues.

Federally permitted release, as defined by section 101(10) of CERCLA, means (a) discharges in compliance with a permit under section 402 of the Federal Water Pollution Control Act; (b) discharges resulting from circumstances identified and reviewed and made part of the public record with respect to a permit issued or modified under section 402 of the Federal Water Pollution Control Act and subject to a condition of such permit; (c) continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the Federal Water Pollution Control Act, which are caused by events occurring within the scope of relevant operating or treatment systems; (d) discharges in compliance with a legally enforceable permit under section 404 of the Federal Water Pollution Control Act; (e) releases in compliance with a legally enforceable final permit issued pursuant to section 3005(a) through (d) of the Solid Waste Disposal Act from a hazardous waste treatment, storage, or disposal facility when such permit specifically identifies the hazardous substances and makes such substances subject to a standard of practice, control procedure or bioassay limitation or condition, or other control on the hazardous substances in such releases; (f) any release in compliance with a legally enforceable permit issued under section 102 or section 103 of the Marine Protection, Research and Sanctuaries Act of 1972; (g) any injection of fluids authorized under Federal underground injection control programs or State programs submitted for Federal approval (and not disapproved by the Administrator of EPA) pursuant to part C of the Safe Drinking Water Act; (h) any emission into the air subject to a permit or control regulation under section 111, section 112, title 1 part C, title 1 part D, or State implementation plans submitted in accordance with section 110 of the Clean Air Act (and not disapproved by the Administrator of EPA), including any schedule or waiver granted, promulgated, or approved under these sections; (i) any injection or fluids or other materials authorized under applicable State law (1) for the purpose of stimulating or treating wells for the production of crude oil, natural gas, or water, (2) for the purpose of secondary, tertiary, or other enhanced recovery of crude oil or natural gas, or (3) which are brought to the surface in conjunction with the production of crude oil or natural gas and which are reinjected; (j) the introduction of any pollutant into a publicly owned treatment works when such pollutant is specified in and in compliance with applicable pretreatment standards of section 307 (b) or (c) of the CWA and enforceable requirements in a pretreatment program submitted by a State or municipality for Federal approval under section 402 of such Act, and (k) any release of source, special nuclear, or by-product material, as those terms are defined in the Atomic Energy Act of 1954, in compliance with a legally enforceable license, permit, regulation, or order issued pursuant to the Atomic Act of 1954.

First Federal official, means the first representative of a Federal agency, with responsibility under this Plan, to arrive at the scene of a discharge or release. This official coordinates activities under this Plan and is authorized to initiate necessary actions normally carried out by the OSC, until arrival of the predesignated OSC.

Fund or Trust Fund means the Hazardous Substance Response Trust Fund established by section 221 of CERCLA.

Ground water, as defined by section 101(12) of CERCLA, means water in a saturated zone or stratum beneath the surface of land or water.

Hazardous substance, as defined by section 101(14) of CERCLA, means (a) any substance designated pursuant to section 311(b)(2)(A) of the CWA; (b) any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; (c) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid

Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); (d) any toxic pollutant listed under section 307(a) of the CWA; (e) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (f) any imminently hazardous chemical substance or mixture with respect to which the Administration has taken action pursuant to section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (a) through (f) of this paragraph, and the term does not include natural gas, natural gas liquids, liquified natural gas or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

Inland waters, for the purposes of classifying the size of discharges, means those waters of the U.S. in the inland zone, waters of the Great Lakes, and specified ports and harbors on inland rivers.

Inland zone means the environment inland of the coastal zone excluding the Great Lakes and specified ports and harbors of inland rivers. The term inland zone delineates the area of Federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreement and identified in Federal regional contingency plans.

Lead agency means the Federal agency (or State agency operating pursuant to a contract or cooperative agreement executed pursuant to a contract or cooperative agreement executed pursuant to section 104(d)(1) of CERCLA) that has primary responsibility for coordinating response action under this Plan. A Federal lead agency is the agency that provides the OSC or RPM as specified elsewhere in this Plan. In the case of a State as lead agency, the State shall carry out the same responsibilities delineated for OSCs/RPMs in this Plan (except coordinating and directing Federal agency response actions).

Management of Migration, means actions that are taken to minimize and mitigate the migration of hazardous substances or pollutants or contaminants and the effects of such migration. Management of migration actions may be appropriate where the hazardous substances or pollutants or contaminants are no longer at or near the area where they were originally located or situations where a source cannot be adequately identified or characterized. Measures may include, but are not limited to, provision of alternative water supplies, management of a plume of contamination or treatment of drinking water aquifer.

Natural Resources, as defined by section 101(16) of CERCLA, means land, fish, wildlife, biota, air water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of fishery conservation zones established by the fishery Conservation and Management Act of 1976), any State or local government or any foreign government.

Offshore facility, as defined by section 101(17) of CERCLA and section 311(a)(11) of the CWA, means any facility of any kind located in, on, or under any of the navigable waters of the U.S. and any facility of any kind which is subject to the jurisdiction of the U.S. and is located in, on, or under any other waters, other than a vessel or a public vessel.

Oil, as defined by section 311(a)(1) of CWA, means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

Oil pollution fund means the fund established by section 311(k) of the CWA.

Onshore Facility, (a) as defined by section 101(18) of CERCLA, means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land or non-navigable waters within the United States; and (b) as defined by section 311(a)(10) of CWA means any facility (including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land within the United States other than submerged land.

On-Scene Coordinator (OSC) means the Federal official predesignated by the EPA or USCG to coordinate and direct Federal responses under Subpart E and removals under Subpart F of this Plan; or the DOD official designated to coordinate and direct the removal actions from releases of hazardous substances, pollutants, or contaminants from DOD vessels and facilities.

Operable Unit, is a discrete part of the entire response action that decreases a release, threat or release, or pathway of exposure.

Person, as defined by section 1012(21) or CERCLA, means an individual, firm, cooperation, association, partnership, consortium, joint venture, commercial entity, U.S. Government, State municipality, commission, political subdivision of a State, or any interstate body.

Plan means the National Oil and Hazardous Substances Pollution Contingency Plan published under section 311(c) of the CWA and revised pursuant to section 105 of CERCLA.

Pollutant or containment, as defined by section 104(a)(2) of CERCLA, shall include, but not be limited to, any element, substance, compound, or mixture, including disease causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingesting through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformation, in such organisms or their offspring. The term does not include petroleum, including crude oil and any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under section 101(14)(A) through (F) of CERCLA, nor does it include natural gas, liquified natural gas, or synthetic gas of pipeline quality (or mixture of natural gas and synthetic gas). For purposes of subpart F of this plan, the term pollutant or contaminant means any pollutant or contaminant whch may present an imminent and substantial danger to public health, or welfare.

Release, as defined by section 101(22) of CERCLA, means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injection, escaping, leaching, dumping, or disposing into the environment, but excludes (a) any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons (b) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; (c) release of source, by-product or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such act, or, for the purpose of section 104 of CERCLA or any other response action, any release of source, byproduct, or special nuclear material from any processing site designated under section 122(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978; and (d) the normal

application of fertilizer. For the purpose of this Plan, release also means substantial threat of release.

Remedial Investigation is a process undertaken by the lead agency (or responsible party if the responsible party will be developing a clean-up proposal) which emphasizes data collection and site characterization. The remedial investigation is generally performed concurrently and in an interdependent fashion with the feasibility study. However, in certain situations the Agency may require potential responsible parties to conclude initial phases of the remedial investigation prior to initiation of the feasibility study. A remedial investigation is undertaken to determine the nature and extent of the problem presented by the release. This includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for and proposed extent of remedial action. Part of the remedial investigation involves assessing whether the threat can be mitigated or minimized by controlling the source of the contamination at or near the area where the hazardous substances or pollutants or contaminants were originally located (source control remedial actions) or whether additional actions will be necessary because the hazardous substances or pollutants or contaminants have migrated from the area of their original location (management of migration).

Remedial Project Manager (RPM) means the Federal official designated by EPA (or the USCG for vessels) to coordinate, monitor, or direct remedial activities under Subpart F of this Plan; or the Federal official DOD designates to coordinate and direct Federal remedial actions resulting from releases of hazardous substances, pollutants, or contaminants from DOD facilities or vessels.

Remedy or remedial action, as defined by section 101(24) of CERCLA, means those actions consistent with permanent remedy taken instead of, or in addition to, removal action in the event of a release of threatened release of a hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or ditches, clay cover, neutralization, clean-up or released hazardous substances or contaminated materials recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of leachate and runoff, on-site treatment or incineration, provision of alternative water supplies, and any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment. The term includes the costs of permanent relocation of residents and businesses and community facilities where the President determines that, along or in combination with other measures, such relocation is more cost-effective than and environmentally preferable to the transportation, storage, treatment, destruction, or secure disposition off-site of such hazardous substances or may otherwise be necessary to protect the public health or welfare. The term does not include off-site transport of hazardous substances or contaminated materials unless the President determines that such actions (a) are more cost-effective than other remedial actions; (b) will create new capacity to manage in compliance with subtitle C of the Solid Waste Disposal Act, hazardous substances in addition to those located at the affected facility; or (c) are necessary to protect public health or welfare or the environment from a present or potential risk which may be created by further exposure to the continued presence of such substances or materials.

Remove or removal, as defined by section 311(a)(8) of CWA refers to removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health, welfare, or the environment. As defined by section 101(23) of CERCLA, remove or removal means the clean-up or removal of released hazardous substances from the environment; such actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or the environment, which may otherwise result from such release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, and any emergency assistance which may be provided under the Disaster Relief Act of 1974.

Respond or response, as defined by section 101(25) of CERCLA, means remove, removal, remedy, or remedial action.

Site Quality Assurance and Sampling Plan, is a written document, associated with site sampling activities, which presents in specific terms the organization (where applicable), objectives, functional activities, and specific quality assurance (QA) and quality control (QC) activities designed to achieve the data quality goals of a specific project(s) or continuing operation(s). The QA Project Plan is prepared for each specific project or continuing operation (or group of similar projects of continuing operations). The QA Project Plan will be prepared by the responsible Program Office, Regional Office, Laboratory, contractor, recipient of an assistance agreement or other ogranization.

Size classes of discharges refers to the following size classes of oil discharges which are provided as guidance to the OSC and serve as the criteria for the actions delineated in Subpart E. They are not meant to imply associated degrees of hazard to public health or welfare, nor are they a measure of environmental damage. Any oil discharge that poses a substantial threat to the public health or welfare or results in critical public concern shall be classified as a major discharge regardless of the following quantitative measures;

(a) *Minor discharge* means a discharge to the inland waters of less than 1,000 gallons of oil or a discharge to the coastal waters of less than 10,000 gallons of oil.

(b) *Medium discharge* means a discharge of 1,000 to 10,000 gallons of oil to the inland waters or a discharge of 10,000 to 100,000 gallons of oil to the coastal waters.

(c) *Major discharge* means a discharge of more than 10,000 gallons of oil to the inland waters or more than 100,000 gallons of oil to the coastal waters.

Size classes of releases refers to the following size classifications which are provided as guidance to the OSC for meeting pollution report requirements in Subpart C. The final determination of the appropriate classification of a release will be made by the OSC based on consideration of the particular release (e.g., size, location, impact, etc.).

(a) *Minor release* means a release of a quantity of hazardous substance, pollutant, or contaminant that posed minimal threat to public health or welfare or the environment.

(b) *Medium release* means all releases not meeting the criteria for classification as a minor or major release.

(c) *Major release* means a release of any quantity of hazardous substances, pollutant, or contaminant that posts a substantial threat to public health or welfare or the environment or results in significant public concern.

Source control remedial action means measures that are intended to contain the hazardous substances or pollutants or contaminants where they are located or eliminate potential contamination by transporting the hazardous substances or pollutants or contaminants to a new location. Source control remedial actions may be appropriate if a substantial concentration or amount of hazardous substances or pollutants or contaminants remain at or near the area where they are originally located and inadequate barriers exist to retard migration of hazardous substances or pollutants or contaminants into the environment. Source control remedial actions may not be appropriate if most hazardous substances or pollutants or contaminants have migrated from the area where originally located or if the lead agency determines that the hazardous substances or pollutants or contaminants are adequately contained.

Specified ports and harbors means those port and harbor areas on inland rivers, and land areas immediately adjacent to those waters, where the USCG acts as predesignated on-scene coordinator. Precise locations are determined by EPA/USCG regional agreements and identified in Federal regional contingency plans.

Trustee means any Federal natural resources management agency designated in Subpart G of this plan, and any State agency which may prosecute claims for damages under section 107(f) of CERCLA.

United States, as defined by section 311(2)(5) of CWA, refers to the States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands. As defined by section 101(27) of CERCLA, *United States* and *State* include the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Marianas and any other territory or possession over which the U.S. has jurisdiction.

Volunteer means any individual accepted to perform services by a Federal agency which has authority to accept volunteer services (examples: see 16 U.S.C. 742f(c)). A volunteer is subject to the provisions of the authorizing statute, and § 300.25 of this Plan.

Subpart B—Responsibility

§ 300.21 Duties of President delegated to Federal agencies.

(a) In Executive Order 11735 and Executive Order 12316, the President delegated certain functions and responsibilities vested to him by the CWA and CERCLA, respectively. Responsibilities so delegated shall be responsibilities of Federal agencies under this Plan unless:

(1) Responsibility is redelegated pursuant to section 8(f) of Executive Order 12316, or

(2) Executive Order 11735 or Executive Order 12316 is amended or revoked.

§ 300.22 Coordination among and by Federal agencies.

(a) Federal agencies should coordinate their planning and response activities through the mechanisms described in Subpart C of this Plan and other means as may be appropriate.

(b) Federal agencies should coordinate planning and response action with affected State and local government and private entities.

(c) Federal agencies with facilities or other resources which may be useful in a Federal response situation should make those facilities or resources available consistent with agency capabilities and authorities.

(d) When the Administrator of EPA or the Secretary of the Department in which the Coast Guard is operating determines:

(1) That there is an imminent and substantial endangerment to the public health or welfare or the environment because of a release or threatened release of a hazardous substance from a facility; he/she may request the Attorney General to secure the relief necessary to abate the threat. The action described here is in addition to any actions taken by a State or local government for the same purpose.

(e) In accordance with section 311(d) of CWA, whenever a marine disaster in or upon the navigable waters of the United States has created a substantial threat of a pollution hazard to the public health or welfare because of a discharge or an imminent discharge from a vessel of large quantities of oil or hazardous substances designated pursuant to section 311(b)(2)(A) of CWA, the United States may:

(1) Coordinate and direct all public and private efforts to abate the threat;

(2) Summarily remove and, if necessary, destroy the vessel by whatever means are available without regard to any provisions of law governing the employment of personnel or the expenditure of appropriated funds. The authority for these actions has been delegated under Executive Order 11735 to the Administrator of EPA and the Secretary of the Department in which the Coast Guard is operating, respectively, for the waters for which each designates the OSC under this Plan.

(f) Response actions to remove discharges originating from the Outer Continental Shelf Lands Act operations shall be in accordance with this Plan.

(g) Where appropriate, discharges of radioactive materials shall be handled pursuant to the appropriate Federal radiological plan. For purposes of this Plan, the Federal Radiological Emergency Response Plan (49 FR 35896, Sept. 12, 1984) is the appropriate response plan.

§ 300.23 Other assistance by Federal agencies.

(a) Each of the Federal agencies listed in paragraph (b) of this section has duties established by statute, executive order, or Presidential directive which may be relevant to Federal response action following or in prevention of a discharge of oil or a release of a hazardous substance, pollutant or contaminant. These duties may also be relevant to the rehabilitation, restoration, and replacement of damaged or lost natural resources. Federal regional contingency plans should call upon agencies to carry out these duties in a coordinated manner.

(b) The following Federal agencies may be called upon by an OSC/RPM during the planning or implementation of a response to provide assistance in their respective areas of expertise as indicated below, consistent with agency capabilities and legal authorities:

(1) The Department of Agriculture (USDA) provides expertise in managing agricultural, forest, and wilderness areas. The Soil Conservation Service can provide to the OSC/RPM predictions of the effects of pollutants on soil and their movements over and through soil.

(2) The Department of Commerce (DOC), through NOAA, provides scientific expertise on living marine resources for which it is responsible and their habitats, including endangered species and marine mannals; coordinates scientific support for responses and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of discharged oil and released hazardous substance releases; provides information on actual and

predicted meteorological, hydrologic, ice, and oceanographic conditions for marine, coastal, and inland waters; furnishes charts and maps, including tide and circulation information for coastal and territorial waters and for the Great Lakes.

(3) The Department of Defense (DOD), consistent with its operational requirements, may provide assistance to other Federal agencies on request. The United States Army Corps of Engineers has specialized equipment and personnel for maintaining navigation channels, for removing navigation obstructions, for accomplishing structural repairs, and performing maintenance to hydropower electric generating equipment. The Corps can also provide design services, perform construction, and can provide contract writing and contract administration services for other Federal agencies. The United States Navy (USN), as a result of its mission and Pub. L. 80–513 (Salvage Act), is the Federal agency most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has an extensive array of specialized equipment and personnel available for use in these areas as well as specialized containment, collection, and removal equipment specifically designed for salvage-related and open sea pollution incidents. Also, upon request of the OSC, locally deployed USN oil spill equipment may be provided. These services and equipment are available on a reimbursable basis to Federal agencies upon request when commercial equipment is not available. As described elsewhere in the Plan, DOD officials serve as OSCs for removal action and as RPMs for remedial actions resulting from releases of hazardous substances, pollutants, or contaminants from DOD vessels and facilities.

(4) The Department of Energy (DOE) provides advice to the OSC/RPM when assistance is required in identifying the source and extent of radioactive releases, and in the removal and disposal of radioactive contamination.

(5) The Department of Health and Human Services (HHS) is responsible for providing assistance on all matters related to the assessment of health hazards at a response, and protection of both response worker's and the public's health.

(6) The Federal Emergency Management Agency (FEMA) will provide advice and assistance to the OSC/RMP on coordinating civil emergency planning and mitigation efforts with other Executive agencies, State and local governments, and the private sector. In the event of a major disaster declaration or emergency determination by the President at a hazardous materials response site, FEMA will coordinate all disaster or emergency actions with the OSC/RPM.

(7) The Department of the Interior (DOI) should be contacted through Regional Environmental Officers (REO), who are the designated members of RRTs. Department land managers have jurisdiction over the National Park System, National Wildlife Refuges and Fish Hatcheries, the public lands, and certain water projects in western States. In addition, bureaus and offices have relevant expertise as follows: *Fish and Wildlife Service:* fish and wildlife, including endangered and threatened species, migratory birds, certain marine mammals; habitats, resource contaminants; laboratory research facilities. *Geological Survey;* geology, hydrology (ground water and surface), and natural hazards. *Bureau of Land Management:* Minerals, soils, vegetation, wildlife, habitat, archaeology, wilderness; hazardous materials; etc. *Minerals Management Services:* manned facilities for Outer Continental Shelf (OCS) oversight. *Bureau of Mines;* analysis and identification of inorganic hazardous substances. *Office of Surface Mining:* coal mine wastes, land reclamation. *National Park Service* biological and general natural resources expert personnel at Park units. *Bureau of Indian Affairs:* assistance in implementing NCP in American Samoa, Guam, the Trust Territory of the Pacific Islands, and the Virgin Islands.

(8) The Department of Justice (DOJ) can provide expert advice on complicated legal questions arising from discharge or releases and Federal agency responses. In addition, the DOJ represents the Federal Government, including its agencies, in litigation.

(9) The Department of Labor (DOL), through the Occupational Safety and Health Administration (OSHA), will provide the OSC/RPM with advice, guidance, and assistance regarding hazards to persons involved in removal or control or oil discharges and hazardous substance releases, and in the precautions necessary to prevent hazards to their health and safety.

(10) The Department of Transportation (DOT) provides expertise on all modes of transporting oil and hazardous substances. Through the USCG, DOD offers expertise in domestic/international fields of port safety and security, maritime law enforcement, ship navigation and construction, and the manning, operation, and safety of vessels and marine facilities. The USCG also maintains continuously manned facilities which can be used for command, control, and surveillance of oil discharges and hazardous substance releases occurring in the coastal zone. The USCG provides predesignated OSCs for the coastal zone.

(11) The Department of State (DOS) will lead in the development of joint international contingency plans. It will also help to coordinate an international response when discharges or releases cross international boundaries or involve foreign flag vessels. Additionally, this Department will coordinate requests for assistance from foreign governments and U.S. proposals for conducting research at incidents that occur in waters of other countries.

(12) The Environmental Protection Agency (EPA) provides expertise on environmental effects of oil discharges or releases of hazardous substances, pollutants, or contaminants and environmental pollution control techniques. EPA provides predesignated OSCs for the inland zone and RPMs for all remedial actions, unless otherwise agreed. EPA also will generally provide the SSC for responses in inland areas. EPA may enter into a contract or cooperative agreement with the appropriate State in order to implement a remedial action.

(c) In addition to their general responsibilities under paragraph (a) of this section, Federal agencies should:

(1) Make necessary information available to the NRT, RRTs, and OSCs/RPMs.

(2) Inform the NRT and RRTs (consistent with national security considerations) of changes in the availability of resources that would affect the operations of the Plan.

(3) Provide representatives as necessary to the NRT and RRTs and assist RRTs and OSCs in formulating Federal regional and Federal local contingency plans.

(d) All Federal agencies are responsible for reporting releases of hazardous substances and discharges of oil from facilities or vessels which are under their jurisdiction or control in accordance with section 104 (a) and (b) and 101(24) of CERCLA subject to the following:

(1) HHS is delegated all authorities under section 104(b) of CERCLA relating to a determination that illness, disease or complaints thereof may be attributable to exposure to a hazardous substance, pollutant or contaminant. (In addition, section 104(i) of CERCLA calls upon HHS to: establish appropriate disease/exposure registries: conduct appropriate testing for exposed

individuals; develop maintain and provide information on health effects of toxic substances; and maintain a list of areas restricted or closed because of toxic substance contamination.)

[2] FEMA is delegated the authorities vested in the President by section 104(a) of CERCLA to the extent they require permanent relocation of residents, businesses, and community facilities or temporary evacuation and housing of threatened individuals not otherwise provided for. (FEMA is also delegated authority under section 101(24) of CERCLA to the extent they require a determination by the President that "permanent relocation of residents and businesses and community facilities" is included within the terms "remedy" and "remedial action" as defined in section 101[24] of CERCLA.)

[3] DOD is delegated all authority of section 104 [a) and [b] of CERCLA with respect to releases from DOD facilities or vessels, including vessels owned or bareboat chartered and operated.

[e] If the situation is beyond the capability of State and local governments and the statutory authority of Federal agencies, the President, acting upon a request by the Government, may declare a major disaster or emergency and appoint a Federal Coordinating Officer to assume responsibility for direction and control of the Federal response.

§ 300.24 State and local participation.

(a) Each State governor is requested to assign an office or agency to represent the State on the appropriate RRT. Local governments are invited to participate in activities on the appropriate RRT as may be provided by State law or arranged by the State's representative. The State's representative may participate fully in all facets of activities of the appropriate RRT and is encouraged to designate the element of the State government that will direct State supervised response operations.

(b) State and local government agencies are encouraged to include contingency planning for response, consistent with this Plan and Regional Contingency Plans, in all emergency and disaster planning.

(c) States are encouraged to use State authorities to compel potentially responsible parties to undertake response actions, or to themselves undertake response actions which are not eligible for Federal funding.

(d) States may enter into contract or cooperative agreements pursuant to section 104(c)(3) and (d) of CERCLA or section 311(c)(2)(H) of the CWA, as appropriate, to undertake actions authorized under Subparts E and F of this Plan. Requirements for entering into these agreements are included in § 300.58 and § 300.62 of this Plan. While the terms "On-Scene Coordinator," "OSC," Remedial Project Manager," and "RPM" are reserved for Federal officials for the purpose of this Plan, a State agency may choose to use these titles for its response personnel without such use connoting the definitions, responsibilities, and authorities for these titles for Federal officials under this Plan. In the case of a State as lead agency, the State shall carry out the same responsibilities delineated for OSCs/RPMs in this Plan (except coordinating and directing Federal agency response actions).

(e) Since State and local public safety organizations would normally be the first government representatives at the scene of a discharge or release, they would be expected to initiate public safety measures necessary to protect public health and welfare, and are responsible for directing evacuations pursuant to existing State/local procedures.

§ 300.25 Nongovernment participation.

(a) Industry groups, academic organizations, and others are encouraged to commit resources for response operations. Specific commitments should be listed in Federal regional and Federal local contingency plans.

(b) It is particularly important to use the valuable technical and scientific information generated by the non-government local community along with those from Federal and State Government to assist the OSC/RPM in devising cleanup strategies where effective standard techniques are unavailable, and to ensure that pertinent research will be undertaken to meet national needs. The SSC shall act as liaison between the OSC/RPM and such interested organizations.

(c) Federal local contingency plans shall establish procedures to allow for well-organized, worthwhile, and safe use of volunteers. Local plans should provide for the direction of volunteers by the OSC, or by other Federal, State of local officials knowledgeable in contingency operations and capable of providing leadership. Local plans also should identify specific areas in which volunteers can be used, such as beach surveillance, logistical support, and bird and wildlife treatment. Unless specifically requested by the OSC, volunteer generally should not be used for physical removal or remedial activities. If, in the judgment of the OSC or an appropriate participating agency, dangerous conditions exist, volunteers shall be restricted from on-scene operations.

(d) (1) If any person other than the Federal Government or a State or person operating under contract or cooperative agreement with the United States, takes response action and intends to seek reimbursement from the Fund, such actions to be in conformity with this Plan for purposes of section 111(a)(2) of CERCLA may only be reimbursed if such person notifies the administrator of EPA or his/her designee prior to taking such action and receives prior approval to take such action.

(2) The process of prior approval of Fund reimbursement requests is preauthorization. Fund-preauthorization will be considered only for:

(i) Releases warranting a removal action pursuant to § 300.65;

[ii) 104[b) activities; and

[iii) Remedial actions on the National Priorities List.

(3) All requests for preauthorization will be reviewed to determine whether the request should receive priority for funding.

(4) Preauthorization does not obligate the Fund. For purposes of payment of a claim under CERCLA section 112, the responsible Federal official must certify that costs incurred were necessary and consistent with the Fund preauthorization.

(5) All persons requesting preauthorization must demonstrate the technical and other capabilities to respond safely and effectively to releases of hazardous substances, or pollutants or contaminants.

Subpart C—Organization

§ 300.31 Organizational concepts.

Three fundamental kinds of activity are performed pursuant to the Plan: Planning and coordination, operations at the scene of a discharge and/or release, and communications. The organizational elements created to perform these activities are discussed below in the context of their roles in these activities. The organizational concepts of this Plan are depicted in Figure 1. The Standard Federal Regional boundaries are shown in Figure 2 and the U.S. Coast Guard District boundaries are shown in Figure 3.

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National Contingency Plan Concepts

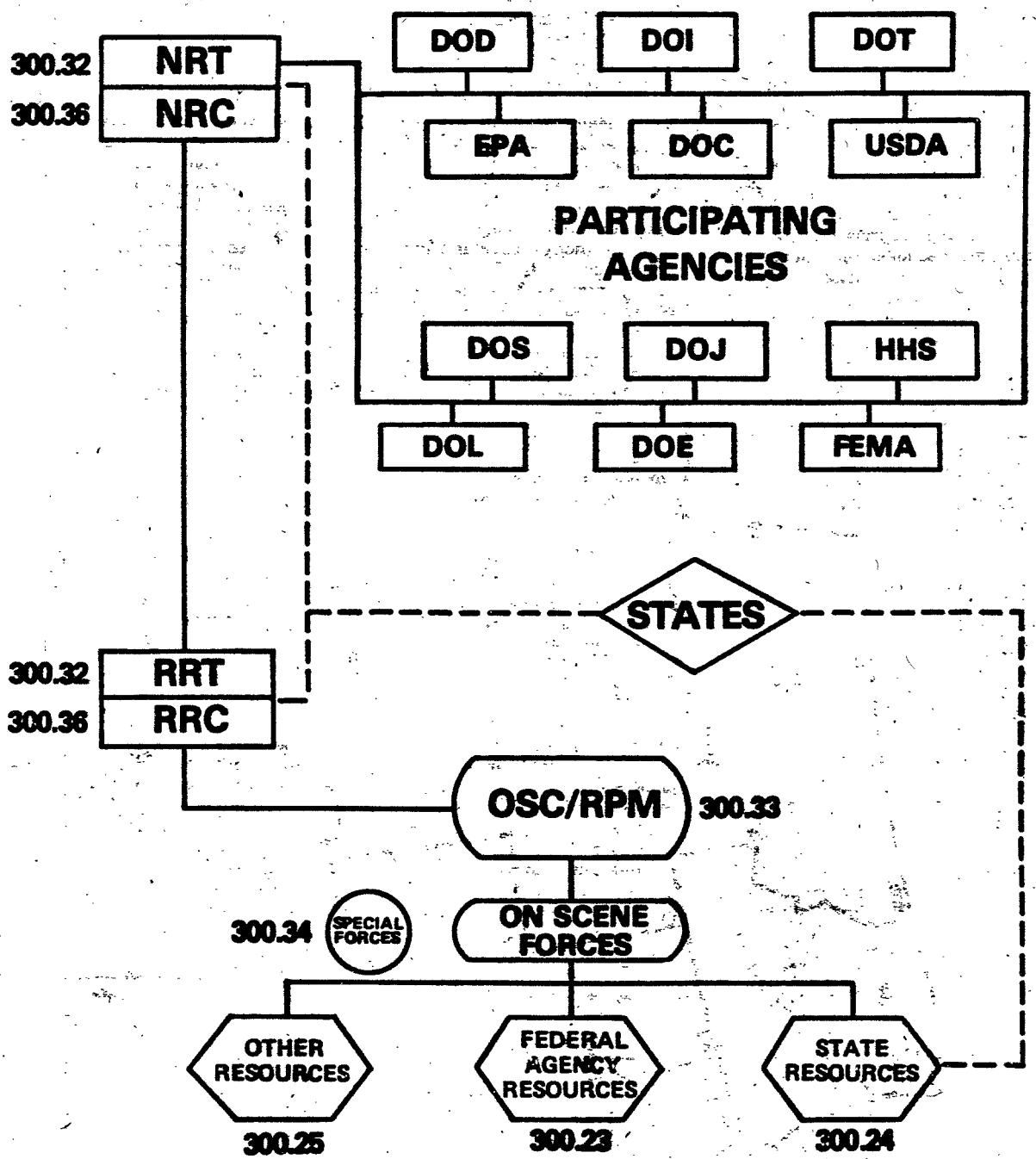


FIGURE 2

STANDARD REGIONAL BOUNDARIES
TEN REGIONS

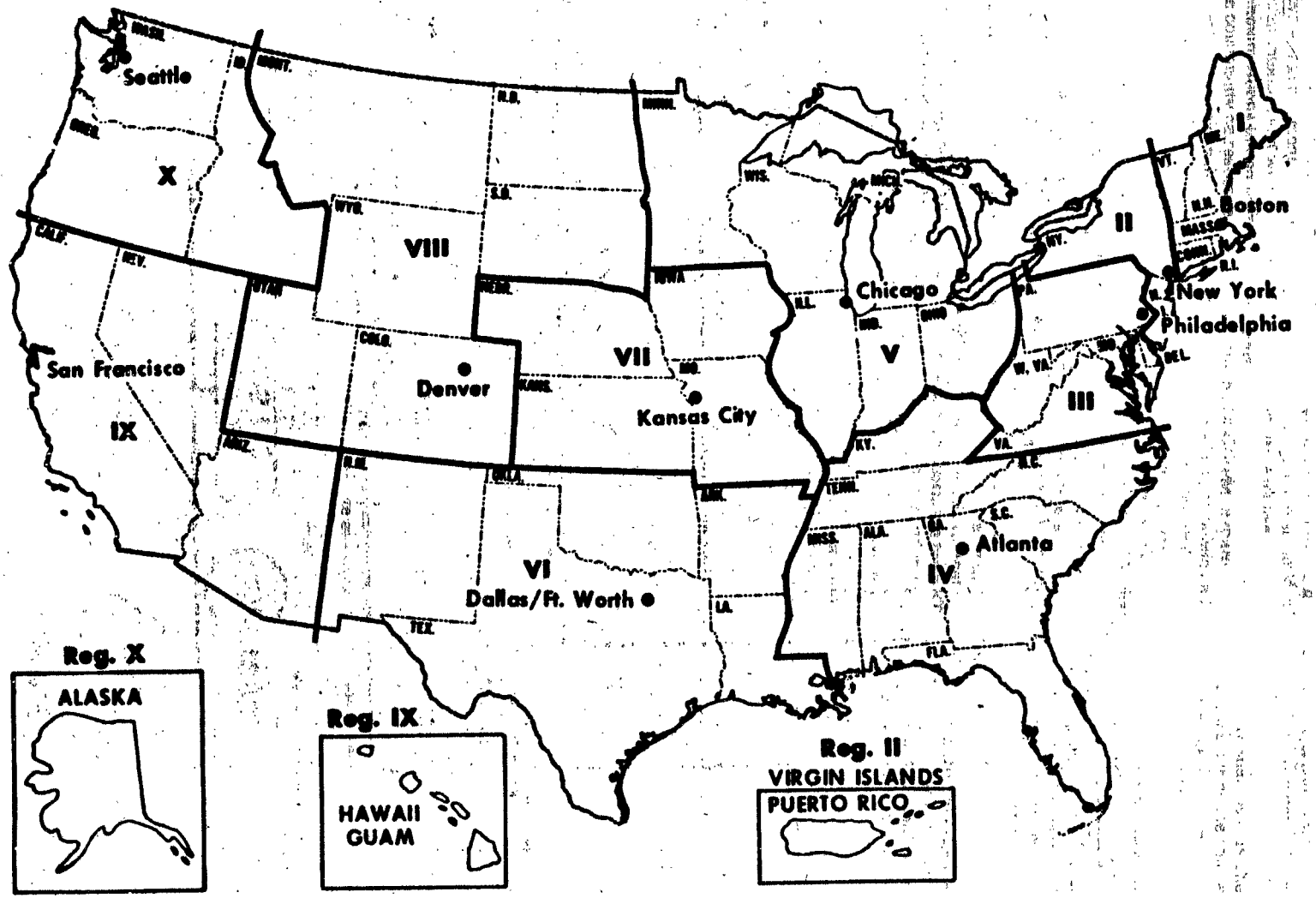
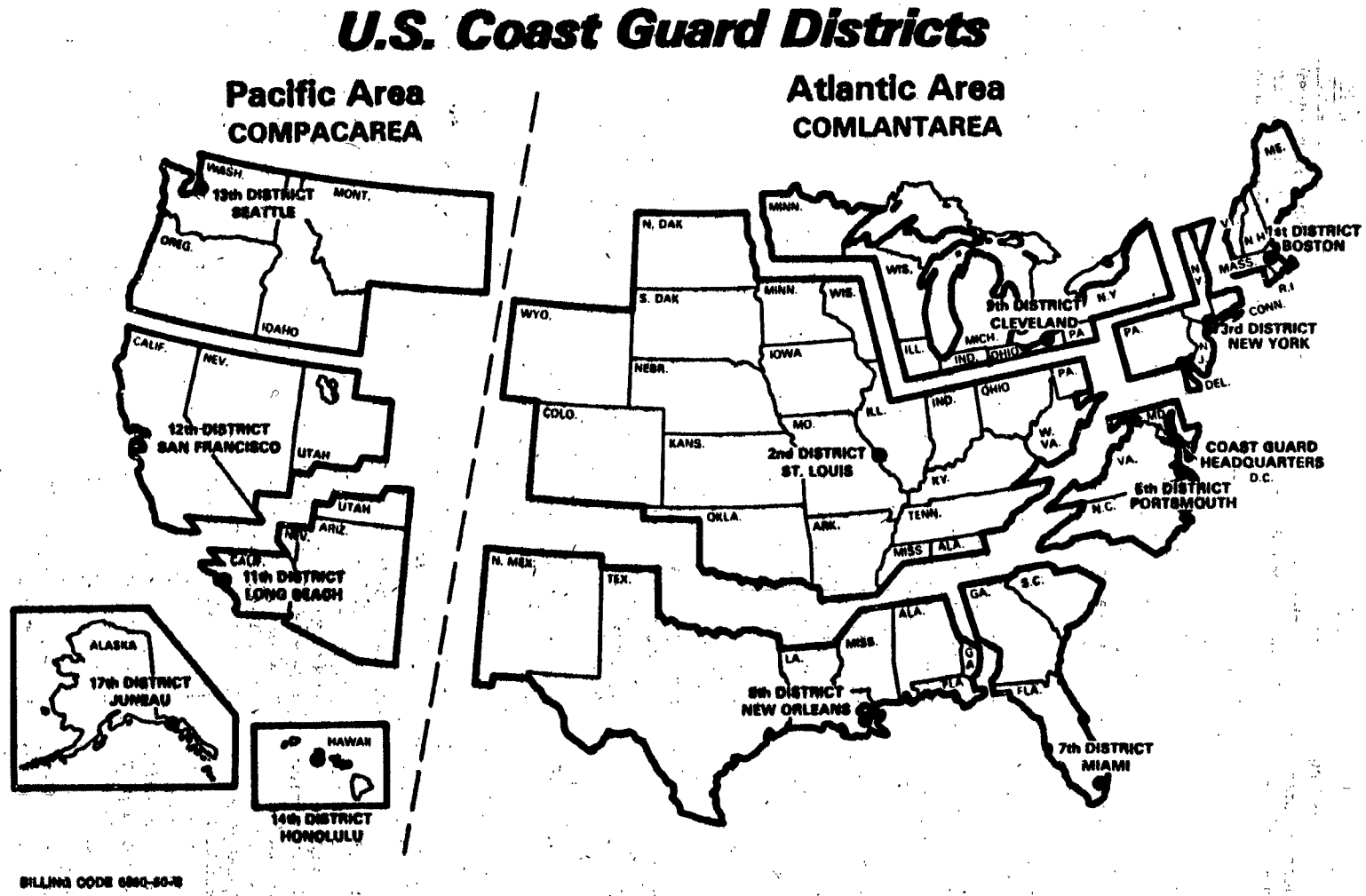


FIGURE 3



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§ 300.32 Planning and coordination.

(a) National planning and coordination is accomplished through the National Response Team (NRT).

(1) The NRT consists of representatives from the agencies named in § 300.23. Each agency shall designate a member to the team and sufficient alternates to ensure representation, as agency resources permit. Other agencies may request membership on the NRT by forwarding such requests to the chairman of the NRT.

(2) Except for periods of activation because of a response action, the representative of EPA shall be the chairman and the representative of USCG shall be the vice chairman of the NRT. The vice chairman shall maintain records of NRT activities along with national, regional, and local plans for response actions. When the NRT is activated for response actions, the chairman shall be the EPA or USCG representative, based on whether the discharge or release occurs in the inland zone or coastal zone, unless otherwise agreed upon by the chairman and vice chairman.

(3) While the NRT desires to achieve a consensus on all matters brought before it, certain matters may prove unresolvable by this means. In such cases, each cabinet, department or agency serving as a participating agency on the NRT may be accorded one vote in NRT proceedings.

(4) The NRT may establish such by-laws and committees as it deems appropriate to further the purposes for which it is established.

(5) When the NRT is not activated for a response action, it shall serve as a standing committee to evaluate methods of responding to discharges or releases, to recommend needed changes in the response organization and to recommend revisions to this Plan.

(6) The NRT may consider and make recommendations to appropriate agencies on the training, equipping and protection of response teams and necessary research, development, demonstration, and evaluation to improve response capabilities.

(7) Direct planning and preparedness responsibilities of the NRT include:

(i) Maintaining national readiness to respond to a major discharge of oil or release of a hazardous substance or pollutant or contaminant which is beyond regional capabilities.

(ii) Monitoring incoming reports from all RRTs and activating when necessary;

(iii) Reviewing regional responses to oil discharges and hazardous substance releases, including an evaluation of equipment readiness and coordinate among responsible public agencies and private organizations;

(iv) Developing procedures to ensure the coordination of Federal, State, and local governments and private response to oil discharges and releases of hazardous substances, pollutants or contaminants;

(v) Monitoring response-related research and development, testing, and evaluation activities of NRT agencies to enhance coordination and avoid duplication of effort; and

(vi) Monitoring response training to encourage coordination of available resources between agencies with responsibilities under this plan.

(8) The NRT may consider matters referred to it for advice or resolution by an RRT.

(b) The RRT provides the appropriate regional mechanism for planning and preparedness activities before a response action is taken and for coordination and advice during such response actions. The two principal components of the RRT mechanism are a standing team, which consists of designated representatives from each participating Federal agency, State governments, and local governments (as agreed upon by the States): And incident-specific teams where participation will relate to the technical nature of the incident and its geographic location. The standing team jurisdiction will correspond with the Standard Federal Regions and will include communications, planning, coordination, training, evaluation, preparedness, and other such matters on a Region-wide basis. The incident-specific team jurisdiction will relate to the operational requirements of discharge or release response. Appropriate levels of activation, including participation by State and local governments, shall be determined by the designated RRT chairman for the incident.

(1) Except when the RRT is activated for a removal incident, the representatives of EPA and USCG shall act as co-chairmen. When the RRT is activated for response actions, the chairman shall be the EPA or USCG representative, based on whether the discharge or release occurs in the inland zone or coastal zone, unless otherwise agreed upon by the co-chairmen.

(2) Each participating agency should designate one member and at least one alternate member to the RRT. Agencies whose regional subdivisions do not correspond to the standard Federal Regions may designate additional representatives to the standing RRT to ensure appropriate coverage of the standard Federal Region. Participating States may also designate one member and at least one alternate member to the Team. All agencies and States may also provide additional representatives as observers to meetings of the RRT.

(3) RRT members should designate representatives from their agencies to work with OSCs in developing Federal local contingency plans, providing for the use of agency resources, and in responding to discharges and releases [see § 300.43].

(4) Federal regional and Federal local plans should adequately provide the OSC with assistance from the Federal agencies commensurate with agencies' resources, capabilities, and responsibilities within the region. During a response action, the members of the RRT should seek to make available the resources of their agencies to the OSC as specified in the Federal regional and Federal local contingency plans.

(5) Affected States are encouraged to participate actively in all RRT activities [see § 300.24(a)], to designate representatives to work with the RRT and OSCs in developing Federal regional and Federal local plans, to plan for and make available State resources, and to serve as the contact point for coordination of response with local government agencies whether or not represented on the RRT.

(6) The standing RRT will serve to recommend changes in the regional response organization as needed, to revise the regional plan as needed, and to evalute the preparedness of the agencies and the effectiveness of local plans for the Federal response to discharge and releases. The RRT should:

(i) Conduct advance planning for use of dispersants, surface collection agents, burning agents, biological additives, or other chemical agents in accordance with § 300.84(e) of this Plan.

(ii) Make continuing review of regional and local responses to discharges or releases, considering available legal remedies, equipment readiness and coordination among responsible public agencies and private organizations.

(iii) Based on observations of response operations, recommend revisions of the National Contingency Plan to the NRT.

(iv) Consider and recommend necessary changes based on continuing review of response actions in the region.

(v) Review OSC actions to help ensure that Federal regional and Federal local contingency plans are developed satisfactorily.

(vi) Be prepared to respond to major discharges or releases outside the region.

(vii) Meet at least semiannually to review response actions carried out during the preceding period, and consider changes in Federal regional and Federal local contingency plans.

(viii) Provide letter reports on their activities to the NRT twice a year, no later than January 31 and July 31. At a minimum, reports should summarize recent activities, organizational changes, operational concerns, and efforts to improve State and local coordination.

(ix) Encourage the State and local response community to improve their preparedness for response.

(x) Conduct training exercises as necessary to ensure preparedness of the response community within the region.

(7) Whenever there is insufficient national policy guidance on a matter before the RRT, a technical matter requiring solution, a question concerning interpretation of the Plan, or there is a disagreement on discretionary actions between RRT members that cannot be resolved at the regional level, it may be referred to the NRT for advice or resolution.

(c) The OSC is responsible for developing any Federal local contingency plans for the Federal response in the area of the OSC's responsibility. This may be accomplished in cooperation with the RRT and designated State and local representatives [see § 300.43]. Boundaries for Federal local contingency plans shall coincide with those agreed upon between EPA, DOD and the USCG (subject to Executive Order 12316) to determine OSC areas of responsibility and should be clearly indicated in the regional contingency plan. Where practicable, consideration should be given to jurisdictional boundaries established by State and local plans.

(1) The lead agency should provide appropriate training for its OSCs, RPMs, and other response personnel to carry out their responsibilities under this Plan.

(2) To the extent practicable, OSCs/RPMs should ensure that persons designated to act as their on-scene representatives are adequately trained and prepared to carry out actions under this Plan.

(d) Scientific support for the development of regional and local plans is organized by appropriate agencies to provide special expertise and assistance. Generally, the Scientific Support Coordinator (SSC) for plans encompassing the coastal area will be provided by NOAA, and the SSC for inland areas will generally be provided by EPA. SSCs may be obtained from other agencies if determined to be appropriate by the RRT.

§ 300.33 Response operations.

(a) EPA and USCG shall designate OSCs/RPMs for all areas in each region provided, however, that DOD shall designate OSCs/RPMs responsible for taking all actions resulting from releases of hazardous substances, pollutants, or contaminants from DOD facilities and vessels. DOD will be the removal response authority with respect to incidents involving DOD military weapons and munitions. Removal actions involving nuclear weapons should be conducted in accordance with the joint Department of Defense, Department of Energy, and Federal Emergency Management Agency agreement for Response to Nuclear Incidents and Nuclear Weapons Significant Incidents of January 8, 1981. The USCG will furnish or provide OSCs for oil discharges and for the immediate removal of hazardous substances, pollutants, or contaminants into or threatening the coastal zone except that the USCG will not provide predesignated OSCs for discharges and releases from hazardous waste management facilities or in similarly chronic incidents. EPA shall furnish or provide OSCs for discharges and releases into or threatening the inland zone and shall furnish or provide RPMs for federally funded remedial actions except as otherwise agreed. The USCG will provide an initial response to hazardous waste management facilities within the coastal zone in accordance with the DOT/EPA Instrument of Redelegation (48 FR 63294). EPA will also assume all remedial actions resulting from removals initiated by the USCG in the coastal zone except those involving vessels. The USCG OSC shall contact the cognizant EPA RPM as soon as it is evident that a removal may require a follow-up remedial action to ensure that the required planning can be initiated and an orderly transition to EPA lead can occur.

(b) The OSC/RPM directs Federal Fund-financed response efforts and coordinates all other Federal efforts at the scene of a discharge or release subject to Executive Order 12316. As part of the planning and preparation for response, the OSCs/RPMs shall be predesignated by the regional or district head of the lead agency.

(1) The first Federal official to arrive at the scene of a discharge or release should coordinate activities under this Plan and is authorized to initiate necessary actions normally carried out by the OSC until the arrival of the predesignated OSC. This official may initiate Federal Fund-financed actions only as authorized by the OSC or (if the OSC is unavailable) the authorized representative of the lead agency.

(2) The OSC/RPM shall, to the extent practicable under the circumstances, collect pertinent facts about the discharge or release, such as its source and cause; the existence of potentially responsible parties; the nature, amount, and location of discharged or released materials; the probable direction and time of travel of discharged or released materials; the pathways to human and environmental exposure; potential impact on human health, welfare, environment, and safety; the potential impact on natural resources and property which may be affected; priorities for protecting human health, welfare and the environment; and appropriate cost documentation.

(3) The OSC/RPM shall direct response operations [see Subparts E and F for descriptive details]. The OSC's/RPM's effort shall be coordinated with other appropriate Federal, State, local and private response agencies. OSC/RPMs may designate capable persons from Federal, State, or local agencies to act as their on-scene representative. State and local representatives, however, are not authorized to take actions under Subparts E and F that involve expenditures of CWA 311(k) or CERCLA funds unless an appropriate contract or cooperative agreement has been established.

(4) The OSC (and when the RRT has been activated for a remedial action, the RPM) should consult regularly with the RRT in carrying out this Plan and will keep the RRT informed of activities under this Plan.

(5) The OSC/RPM shall advise the appropriate State agency (as agreed upon with each State) as promptly as possible of reported discharges and releases.

(6) The OSC/RPM shall evaluate incoming information and immediately advise FEMA of potential major disaster situations. In the event of a major disaster or emergency, under the Disaster Relief Act of 1974 (Pub. L. 93-288), the OSC/RPM will coordinate any response activities with the Federal Coordinating Officer designated by the President. In addition, the OSC/RPM should notify FEMA of situations potentially requiring evacuation, temporary housing, and permanent relocation.

(7) In those instances where a possible public health emergency exists, the OSC/RPM should notify the HHS representative to the RRT. Throughout response actions, the OSC/RPM may call upon the HHS representative for assistance in determining public health

threats and for advice on worker health safety problems.

(8) All Federal agencies should plan for emergencies and develop procedures for dealing with oil discharges and releases of hazardous substances, pollutants, or contaminants from vessels and facilities under their jurisdiction. All Federal agencies, therefore, are responsible for designating the office that coordinates response to such incidents in accordance with this Plan and applicable Federal regulations and guidelines. The OSC/RPM should provide advice and assistance as requested by Federal agencies for incidents involving vessels or facilities under their jurisdiction. At the request of the Federal agency, or if, in the opinion of the OSC (or in a remedial action, the lead agency,) the responsible Federal agency does not act promptly or take appropriate action to respond to a discharge or release occurring on a vessel or facility, including contiguous lands under its jurisdiction, the OSC (or in a remedial action, the lead agency) designated to respond in the area where the discharge or release occurs may conduct appropriate response activities. If this occurs, the OSC (or in a remedial action, the lead agency) shall consult with and coordinate all response activities taken with the responsible Federal agency. With respect to release of hazardous substances, pollutants, or contaminants from DOD facilities or vessels, DOD designates the OSC/RPM.

(9) The OSC/RPM should advise the affected land managing agency and trustees of natural resources, as promptly as possible, of releases and discharges affecting Federal resources under its jurisdiction. The OSC or RPM should consult with and coordinate all response activities with the affected land managing agency or resource trustee to the extent practicable.

(10) Where the OSC/RPM becomes aware that a discharge or release may adversely affect any endangered or threatened species, or result in destruction or adverse modification of the habitat of such species, the OSC/RPM should consult with the DOI or DOC (NOAA).

(11) The OSC/RPM is responsible for addressing worker health and safety concerns at a response scene, in accordance with § 300.38 of this Plan.

(12) The OSC shall submit reports to the RRT and appropriate agencies as significant developments occur during removal actions.

(13) OSCs/RPMs should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response in accordance with § 300.39 to the extent practicable.

(14) The RPM is the prime contact for remedial actions being taken (or needed to be taken) at sites on the proposed or promulgated National Priorities List (NPL). These actions include:

(i) *Fund Financed Cleanup/Federal Lead*—The RPM coordinates, directs and reviews the work of all EPA, State and local governments, U.S. Army Corps of Engineers, and all other agencies and contractors to assure compliance with this Plan. Based upon the reports of these parties, the RPM recommends action for decisions by lead agency officials. The RPM's period of responsibility begins prior to initiation of the Remedial Investigation/Feasibility Study (RI/FS) [described in § 300.68(e)] and continues through design, construction, deletion of the site from the NPL, and in some cases, the CERCLA cost recovery activity. The RPM should coordinate with the OSC to ensure an orderly transition from OSC response activities of a State-lead remedial activities.

(ii) *Fund Financed Cleanup/State Lead*—The RPM serves in an oversight capacity during the planning, design and cleanup activities of a State-lead remedial action, offering both technical and programmatic guidance.

(iii) The RPM should be involved in all decisionmaking processes necessary to ensure compliance with this Plan and the cooperative agreement between the EPA and the State.

300.34 Special forces and teams.

(a) The National Strike Force (NSF) consists of the Strike Teams established by the USCG on the Atlantic, Pacific and Gulf coasts and includes emergency task forces to provide assistance to the OSC/RPM.

(1) The Strike Teams can provide communication support, advice and assistance for oil and hazardous substances removal. These teams also have knowledge of shipboard damage control and diving. Additionally, they are equipped with specialized containment and removal equipment, and have rapid transportation available. When possible, the Strike Teams will train the emergency task forces and assist in the development of regional and local contingency plans.

(2) The OSC/RPM may request assistance from the Strike Teams. Requests for a team may be made directly to the Commanding Officer of the appropriate team, the USCG member of the RRT, the appropriate USCG Area Commander, or the Commandant of the USCG through the NRC.

(b) Each USCG OSC manages emergency task forces trained to evaluate, monitor, and supervise pollution responses. Additionally, they have limited "initial aid" response capability to deploy equipment prior to the arrival of a clean-up contractor, or other response personnel.

(c)(1) The Environmental Response Team (ERT) is established by EPA in accordance with its disaster and emergency responsibilities. The ERT includes expertise in biology, chemistry, hydrology, geology and engineering.

(2) It can provide access to special decontamination equipment for chemical releases and advice to the OSC/RPM in hazard evaluation; risk assessment; multimedia sampling and analysis program; on-site safety, including development and implementation plans; clean-up techniques and priorities; water supply decontamination and protection; application of dispersants; environmental assessment; degree of clean-up required; and diposal of contaminated material.

(3) The ERT also provides both introductory and intermediate level training courses to prepare response personnel.

(4) OSC/RPM or RRT requests for ERT support should be made to the EPA representative on the RRT, the EPA Headquarters, Director, Office of Emergency and Remedial Response; or the appropriate EPA regional emergency coordinator.

(d) Scientific Support Coordinators (SSCs) are available, at the request of OSCs/RPMs, to assist with actual or potential responses to discharges of oil or releases of hazardous substances, pollutants, or contaminants. Generally, SSCs are provided by the National Oceanic and Atmospheric Administration (NOAA) in coastal and marine areas, and by the Environmental Protection Agency (EPA) in inland regions.

(1) During a response, the SSC serves under the direction of the OSC/RPM and is responsible for providing scientific support for operational decisions and to coordinate on-scene scientific activity. Depending on the nature of the incident, the SSC can be expected to provide certain specialized scientific skills and to work with governmental agencies, universities, community representatives, and industry to compile information that would assist the OSC/RPM in assessing the hazards and potential affects of discharges and releases and in developing response strategies.

(2) If requested by the OSC/RPM, the SSC will serve as the principal liaison for scientific information and will facilitate communications to and from the scientific community on response issues. The SSC, in this role, will attempt to reach a consensus on scientific issues surrounding the response but will also ensure that any differing opinions within the community are communicated to the OSC/RPM.

(3) The SSC will assist the OSC/RPM in responding to requests for assistance from the State and Federal agencies regarding scientific studies and environmental assessments. Details on access to scientific support shall be included in regional contingency plans.

(e) The USCG Public Information Assist Team (PIAT) and the EPA Public Affairs Assist Team (PAAT) are available to assist OSCs/RPMs and regional or district offices meet the demands for public information and participation. Their use is encouraged any time the OSC/RPM requires outside public affairs support. Requests for these teams may be made through the NRC.

(f)(1) The RRT may be activated by the Chairman as an emergency response team when a discharge or release:

(i) Exceeds the response capability available to the OSC in the place where it occurs;

(ii) Transects regional boundaries; or

(iii) May pose a substantial threat to the public health, welfare or to the environment, or to regionally significant amounts of property. Regional contingency plans shall specify detailed criteria for activation of RRTs.

(2) The RRT may be activated during any pollution emergency by a request from any RRT representative to the chairman of the Team. Request for RRT activation shall later be confirmed in writing. Each representative, or an appropriate alternate, should be notified immediately when the RRT is activated.

(3) During prolonged removal or remedial action, the RRT may not need to be activated or may need to be activated only in a limited sense, or have available only those members of the RRT who are directly affected or can provide direct response assistance.

(4) When the RRT is activated for a discharge or release, agency representatives shall meet at the call of the chairman and may:

(i) Monitor and evaluate reports from the OSC/RPM. The RRT may advise the OSC/RPM on the duration and extent of Federal response and may recommend to the OSC/RPM specific actions to respond to the discharge or release.

(ii) Request other Federal, State or local government, or private agencies to provide resources under their existing authorities to respond to a discharge or release or to monitor response operations.

(iii) Help the OSC/RPM prepare information releases for the public and for communication with the NRT.

(iv) If the circumstances warrant, advise the regional or district head of the agency providing the OSC/RPM that a different OSC/RPM should be designated.

(v) Submit Pollution Reports (POLREPS) to the NRC as significant developments occur.

(5) When the RRT is activated, affected States may participate in all RRT deliberations. State government representatives participating in the RRT have the same status as any Federal member of the RRT.

(6) The RRT can be deactivated by agreement between the EPA and USCG team members. The time of deactivation should be included in the POLREPS.

(g) The NRT should be activated as an emergency response team when an oil discharge or hazardous substance release:

(1) Exceeds the response capability of the regions in which it occurs;

(2) Transects regional boundries;

(3) Involves significant population threat or national policy issues, substantial amounts of property, or substantial threats to natural resources; or

(4) Is requested by any NRT member.

(h) When activated for a response action, the NRT shall meet at the call of the chairman and may:

(1) Monitor and evaluate reports from the OSC/RPM. The NRT may recommend to the OSC/RPM, through the RRT, actions to combat the discharge or release.

(2) Request other Federal, State and local governments, or private agencies, to provide resources under their existing authorities to combat a discharge or release or to monitor response operations.

(3) Coordinate the supply of equipment, personnel, or technical advice to the affected region from other regions or districts.

§ 300.35 Multi-regional responses.

(a) If a discharge or release moves from the area covered by one Federal local or Federal regional contingency plan into another area, the authority for removal or response actions should likewise shift. If a discharge or release or substantial threat of discharge or release affects areas covered by two or more regional plans, the response mechanisms of both may be activated. In this case, removal or response actions of all regions concerned shall be fully coordinated as detailed in the regional plans.

(b) There shall be only one OSC/RPM at any time during the course of a response operation. Should a discharge or release affect two or more areas, the EPA, DOD and USCG, as appropriate, shall give prime consideration to the area vulnerable to the greatest threat. The RRT shall designate the OSC/RPM if EPA, DOD and USCG members are unable to agree on the designation. The NRT shall designate the OSC/RPM if members of one RRT to two adjacent RRTs are unable to agree on the designation.

(c) Where the USCG has provided the OSC for emergency response to a release from hazardous waste management facilities located in the coastal zone, responsibility for response action shall shift to EPA, in accordance with EPA/USCG agreements.

§ 300.36 Communications.

(a) The NRC is the national communications center for activities related to response actions. It is located at USCG Headquarters in Washington, D.C. The NRC receives and relays notices of discharges or releases to the appropriate OSC, disseminates OSC/RPM and RRT reports to the NRT when appropriate, and provides facilities for the NRT to use in coordinating a national response action when required.

(b) The Commandant, USCG, will provide the necessary communications, plotting facilities, and equipment for the NRC.

(c) Notice of an oil discharge or release of a hazardous substance in an amount equal to or greater than the reportable quantity must be made immediately in accordance with 33 CFR Part 153, Subpart B and section 103(a) of CERCLA, respectively. Notification shall be made to the NRC Duty Officer, HQ USCG, Washington, D.C. telephone (800) 424-8802 (or current local telephone number). All notices of discharges or releases received at the NRC shall be relayed immediately by telephone to the OSC or lead agency.

(d) The RRC provides facilities and personnel for communications, information storage, and other requirements for the RRC.

§ 300.37 Spatial considerations.

(a) *Response Equipment*—The Spill Cleanup Inventory (SKIM) system is available to help OSCs and RRTs and private parties gain rapid information as to the location of response and support equipment. This inventory is accessible through the NRC and USCG's OSCs. The

inventory includes private and commercial equipment, as well as government resources. The RRTs and OSCs shall ensure that data in the system are current and accurate. The USCG is responsible for maintaining and updating the system with RRT and OSC input.

(b) *Marine salvage.* (1) Marine salvage operations generally fall into five categories: Afloat salage; offshore salvage; river and harbor clearance; cargo salvage; and rescue towing. Each category requires different knowledge and specialized types of equipment. The complexity of such operations may be further compounded by local environmental and geographic conditions.

(2) The nature of marine salvage and the conditions under which it occurs combine to make such operations imprecise, difficult, hazardous, and expensive. Thus, responsible parties or other persons attempting to perform such operations without adequate knowledge, equipment, and experience could aggrevate, rather than relieve, the situation. OSCs with responsibility for monitoring, evaluating, or supervising these activities should request technical assistance from DOD as necessary to ensure that proper actions are taken.

§ 300.38 Worker health and safety.

(a) Requirements under the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.) (OSH Act) and under the laws of States with plans approved under Section 18 of the OSH Act (State OSH laws), as well as other applicable safety and health requirements, will be applied to response activities under this Plan. These requirements are subject to enforcement by the appropriate Federal and State agencies. Federal OSHA requirements include, among other things, all OSHA General Industry (29 CFR Part 1910), Construction (29 CFR Part 1926), Shipyard (29 CFR Part 1915), and Longshoming (29 CFR Part 1918), standards wherever they are relevant, as well as OSHA recordkeeping and reporting regulations. Employers at response actions under this Plan will also be subject to the general duty requirement of section 5(a)(1) of the OSH Act, 29 U.S.C. 654(a)(1). No action by the lead agency with respect to response activities under this Plan constitutes an exercise of statutory authority within the meaning of section 4(b)(1) of the OSH Act. All governmental agencies and private employers are directly responsible for the health and safety of their own employees.

(b) Under a response action taken by a responsible party, the responsible party must assure that an occupational health and safety program is made available for the protection of workers at the response site, and that workers entering the response site are apprised of the response site hazards and provisions of the safety and health program.

(c) Under a Federal Fund-financed response, the lead agency must assure that a program for occupational safety and health is made available for the protection of workers at the response site, and that workers entering the response site are apprised of the response site hazards and provisions of the safety and health program. Any contract relating to a Federal Fund-financed response action under this Plan shall require the contractor at the response site to comply with this program and with any applicable provision of the OSH Act and State OSH laws as defined in § 300.38(a).

§ 300.39 Public information.

(a) When an incident occurs, it is imperative to give the public prompt, accurate information on the nature of the incident and the actions underway to mitigate the damage. OSCs/RPMs and community relations personnel should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response. They should coordinate with available public affairs/community relations resources to carry out this responsibility.

(b) An on-scene news office may be established to coordinate media relations and to issue official Federal information on an incident. Whenever possible, it will be headed by a representative of the lead agency. The OSC/RPM determines the location of the on-scene news office, but every effort should be made to locate it near the scene of the incident. If a participating agency believes public interest warrants the issuance of statements and an on-scene news office has not been established, the affected agency should recommend its establishment. All Federal news releases or statements by participating agencies should be cleared through the OSC/RPM.

§ 300.40 OSC reports.

(a) Within 60 days after the conclusion of a major discharge of oil, a major hazardous substance, pollutant, or contaminant release, or when requested by the RRT, the EPA or USCG OSC shall submit to the RRT a complete report on the response operation and the actions taken. The OSC shall at the same time send a copy of the report to the NRT. The RRT shall review the OSC's report and prepare an endorsement to the NRT for review. This shall be accomplished within 30 days after the report has been received.

(b) The OSC's report shall accurately record the situation as it developed, the actions taken, the resources committed and the problems encountered. The OSC's recommendations are a source for new procedures and policy.

(c) the format for the OSC's report shall be as follows:

(1) Summary of Events—a chronological narrative of all events, including:

(i) The cause of discharge of release;

(ii) The initial situation;

(iii) Efforts to obtain response by responsible parties;

(iv) The organization of the response, including State participation;

(v) The resources committed;

(vi) The location [waterbody (if applicable), State, city, latitude and longitude] of the hazardous substance, pollutant, or contaminant release or oil discharge. For oil discharges, indicate whether the discharge was in connection with activities regulated under the Outer Continental Shelf Lands Act (OCSLA), the Trans-Alaska Pipeline Authority Act or Deepwater Port Act;

(vii) Comments on whether the discharge or release might have or actually did affect natural resources;

(viii) Comments on Federal or State damage assessment activities and efforts to replace or restore damaged natural resources;

(ix) Details of any threat abatement action taken under CERCLA or under section 311 (c) or (d) of the CWA; and

(x) Public information/community relations activities.

(2) Effectiveness of Removal Actions—A candid and thorough analysis of the effectiveness of removal actions taken by:

(i) The responsible party;

(ii) State and local forces;

(iii) Federal agencies and special forces; and

(iv) [If applicable] contractors, private groups and volunteers.

(3) Problems Encountered—A list of problems affecting response with particular attention to problems of intergovernmental coordination.

(4) Recommendations—OSC recommendations, including at a minimum:

(i) Means to prevent a recurrence of the discharge or release;

(ii) Improvement of response actions;

(iii) Any recommended changes in the National Contingency Plan or Federal regional plan.

Subpart D—Plans

§ 300.41 Regional and local plans.

(a) In addition to the National Contingency Plan (NCP), a Federal regional plan shall be developed for each standard Federal region and, where practicable, a Federal local plan shall be developed.

(b) These plans will be available for inspection at EPA Regional Offices or USCG district offices. Addresses and telephone numbers for these offices may be found in the United States Government Manual (issued annually) or in local telephone directories.

§ 300.42 Regional contingency plans.

(a) The RRTs, working with the States, shall develop Federal regional plans for each standard Federal region. The purpose of these plans is coordination of a timely, effective response by various Federal agencies and other organizations to discharges of oil and releases of hazardous substances, pollutants and contaminants in order to protect public health, welfare and the environment. Regional contingency plans should include information on all useful facilities and resources in the region, from government, commercial, academic and other sources. To the greatest extent possible, regional plans will follow the format of the National Contingency Plan.

(b) SSCs shall organize and coordinate the contributions of scientists of each region to the response activities of the OCS/RPM and RRT to the greatest extent possible. SSCs, with advice from RRT members, shall also develop the parts of the regional plan that relate to scientific support.

(c) Regional plans shall contain lines of demarcation between the inland and coastal zones, as mutually agreed upon by USCG and EPA.

§ 300.43 Local contingency plans.

(a) Each OSC shall maintain a Federal local plan for response in his or her area of responsibility, where practicable. In areas in which the USCG provides the OSC, such plans shall be developed in all cases. The plan should provide for a well-coordinated response that is integrated and compatible with the pollution response, fire, emergency and disaster plans of local, State and other non-Federal entities. The plan should identify the probable locations of discharges or releases, the available resources to respond to multi-media incidents, where such resources can be obtained, waste disposal methods and facilities consistent with local and State plans developed under the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.), and a local structure for responding to discharges or releases.

(b) While the OSC is responsible for developing Federal local plans, a successful planning effort will depend upon the full cooperation of all the agencies' representatives and the development of local capabilities to respond to discharges or releases. Particular attention should be given, during the planning process, to developing a multi-agency local response team for coordinating on-scene efforts. The RRT should ensure proper liaison between the OSC and local representatives.

Subpart E—Operational Response Phases for Oil Removal

§ 300.51 Phase I—Discovery and notification.

(a) A discharge of oil may be discovered through;

(1) A report submitted by the person in charge of the vessel or facility in accordance with statutory requirements;

(2) Deliberate search by patrols; and

(3) Random or incidental observation by government agencies or the public.

(b) All reports of discharges should be made to the NRC. If direct reporting to the NRC is not practicable, reports may be made to the predesignated OSC at the nearest USCG or EPA office. All reports shall be promptly relayed to the NRC. Federal regional and Federal regional and Federal local plans shall provide for prompt reporting to the NRC, RRC, and appropriate State agency (as agreed upon with the State).

(c) Upon receipt of a notification of discharge, the NRC shall promptly notify the OSC. The OSC shall proceed with the following phases as outlined in Federal regional and Federal local plans.

§ 300.52 Phase II—Preliminary assessment and initiation of action.

(a) The OSC for a particular area is responsible for promptly initiating preliminary assessment.

(b) The preliminary assessment shall be conducted using available information, supplemented where necessary and possible by an on-scene inspection. The OSC shall undertake actions to;

(1) Evaluate the magnitude and severity of the discharge or threat to public health, welfare, or the environment;

(2) Assess the feasibility of removal;

(3) Determine the existence of potential responsible parties; and

(4) Ensure that authority exists for undertaking additional response actions.

(c) The OSC, in consultation with legal authorities when appropriate, shall make a reasonable effort to have the discharger voluntarily and promptly perform removal actions. The OSC shall ensure adequate surveillance over whatever actions are initiated. If effective actions are not being taken to eliminate the threat, or if removal is not being properly done, the OSC shall, to the extent practicable under the circumstances, so advise the responsible party. If the responsible party does not take proper removal actions, or is unknown, or is otherwise unavailable, the OSC shall, pursuant to section 311(c)(1) of the CWA, determine whether authority for a Federal response exists, and, if so, take appropriate response actions. Where practicable, continuing efforts should be made to encourage response by responsible parties.

(d) The OSC should ensure that the trustees of affected natural resources are notified, in order that the trustees may initiate appropriate actions when natural resources have been or are likely to be damaged (see Subpart G of Part 300). Where practicable, the OSC should consult with trustees in such determinations.

§ 300.53 Phase III—Containment, countermeasures, clean-up, and disposal.

(a) Defensive actions should begin as soon as possible to prevent, minimize, or mitigate threat to the public health or welfare or the environment. Actions may include: analyzing water samples to determine the source and spread of the oil; controlling the source of discharge; measuring and sampling; source and spread control or salvage operations; placement of physical barriers to deter the spread of the oil or to protect endangered species; control of the water discharged from upstream impoundment; and the use of chemicals and other materials in accordance with Subpart H, to restrain the spread of the oil and mitigate its effects.

(b) Appropriate actions should be taken to recover the oil or mitigate its effects. Of the numerous chemical physical methods that may be used, the chosen methods should be the most consistent with protecting the public health and welfare and the environment. Sinking agents shall not be used.

(c) Oil and contaminated materials recovered in cleanup operations shall be disposed of in accordance with Federal

regional and Federal local contingency plans.

§ 300.54 Phase IV—Documentation and cost recovery.

(a) Documentation shall be collected and maintained to support all actions taken under the CWA and to form the basis for cost recovery. In general, documentation should be sufficient to prove the source and circumstances of the incident, the responsible party or parties, and impact and potential impacts to the public health and welfare and the environment. When appropriate, documentation should also be collected for scientific understanding of the environment and for the research and development of improved response methods and technology. Damages to private citizens (including loss of earnings) are not addressed by this Plan. Evidentiary and cost documentation procedures and requirements are specified in the USCG Marine Safety Manual (Commandant Instruction M16000.3) and 33 CFR Part 153.

(b) OSCs shall submit OSC reports to the RRT as required by § 300.40.

(c) The OSC shall ensure the necessary collection and safeguarding of information, samples, and reports. Samples and information must be gathered expeditiously during the response to ensure an accurate record of the impacts incurred. Documentation materials shall be made available to the trustees of affected natural resources.

(d) Information and reports obtained by the EPA or USCG OSC shall be transmitted to the appropriate offices responsible for follow-up actions.

§ 300.56 General pattern of response.

(a) When the OSC receives a report of a discharge, actions normally should be taken in following sequence:

(1) Immediately notify the RRT and NRC when the reported discharge is an actual or potential major discharge.

(2) Investigate the report to determine pertinent information such as the threat posed to public health or welfare, or the environment, the type and quantity of polluting material, and the source of the discharge.

(3) Officially classify the size of the discharge and determine the course of action to be followed.

(4) Determine whether a discharger or other person is properly carrying out removal. Removal is being done properly when:

(i) The clean-up is fully sufficient to minimize or mitigate threat to the public health, welfare, and the environment (removal efforts are "improper" to the extent that Federal efforts are necessary to further minimize or mitigate those threats).

(ii) The removal efforts are in accordance with applicable regulations including this Plan.

(5) Determine whether a State or political subdivision has the capability to carry out response actions and a contract or cooperative agreement has been established with the appropriate fund administrator for this purpose.

(6) Notify the RRT (including the affected State), SSC, and the trustees of affected natural resources in accordance with the applicable regional plan.

(b) The preliminary inquiry will probably show that the situation falls into one of the five classes. These classes and the appropriate response to each are outlined below:

(1) If the investigation shows that no discharge exists, the case shall be considered a false alarm and should be closed.

(2) If the investigation shows a minor discharge with the responsible party taking proper removal action, contact should be established with the party. The removal action should be monitored to ensured continued proper action.

(3) If the investigation shows a minor discharge with improper removal action being taken, the following measures shall be taken:

(i) An immediate effort should be made to stop further pollution and remove past and on-going contamination.

(ii) The responsible party shall be advised of what action will be considered appropriate.

(iii) If the responsible party does not properly respond, he shall be notified of his potential liability for Federal response performed under the CWA. This liability includes all costs of removal and may include the costs of assessing and restoring damaged natural resources and other actual or necessary costs of a Federal response.

(iv) The OSC shall notify appropriate State and local officials, keep the RRT advised and initiate Phase III operations as conditions warrant.

(v) Information shall be collected for possible recovery of response costs in accordance with § 300.54.

(4) When the investigation shows that an actual or potential medium oil discharge exists, the OSC shall follow the same general procedures as for a minor discharge. If appropriate, the OSC shall recommend activation of the RRT.

(5) When the investigation shows an actual or potential major oil discharge, the OSC shall follow the same procedures as for minor and medium discharges.

§ 300.56 [Reserved]

§ 300.57 Waterfowl conservation.

The DOI representatives and the State liaison to the RRT shall arrange for the coordination of professional and volunteer groups permitted and trained to participate in waterfowl dispersal, collection, cleaning, rehabilitation and recovery activities (consistent with 16 U.S.C. 703–712 and applicable State laws). Federal regional and Federal local plans will, to the extent practicable, identify organizations or institutions that are permitted to participate in such activities and operate such facilities. Waterfowl conservation activities will normally be included in Phase III response actions (§ 300.58 of this subpart).

§ 300.58 Funding.

(a) If the person responsible for the discharge does not act promptly including timely actions, or take proper removal actions, or if the person responsible for the discharge is unknown, Federal discharge removal actions may begin under section 311(c)(1) of the CWA. The discharger, if known, is liable for the costs of Federal removal in accordance with section 311(f) of the CWA and other Federal laws.

(b) Actions undertaken by the participating agencies in response to pollution shall be carried out under existing programs and authorities when available. This Plan intends that Federal agencies will make resources available, expend funds, or participate in response to oil discharges under their existing authority. Authority to expend resources will be in accordance with agencies' basic statutes and, if required, through interagency agreements. Where the OSC requests assistance from a Federal agency, that agency may be reimbursed in accordance with the provisions of 33 CFR 153.407. Specific interagency reimbursement agreements may be signed when necessary to ensure that the Federal resources will be available for a timely response to a discharge of oil. The ultimate decisions as to the appropriateness of expending funds rests with the agency that is held accountable for such expenditures.

(c) The OSC shall exercise sufficient control over removal operation to be able to certify that reimbursement from the following funds is appropriate:

(1) The oil pollution fund, administered by the Commandant, USCG, has been established pursuant to section 311(k) of the CWA. Regulations governing the administration and use of

the fund are contained in 33 CFR Part 153.

(2) The fund authorized by the Deepwater Port Act is administered by the Commandant, USCG. Governing regulations are contained in 33 CFR Parts 136 and 150.

(3) The fund authorized by the Outer Continental Shelf Lands Act, as amended, is administered by the Commandant, USCG. Governing regulations are contained in 33 CFR Parts 136 and 150.

(4) The fund authorized by the Trans-Alaska Pipeline Authorization Act is administered by a Board of Trustees under the purview of the Secretary of the Interior. Governing regulations are contained in 43 CFR Part 29.

(d) Response actions other than removal, such as scientific investigations not in support of removal actions or law enforcement, shall be provided by the agency with legal responsibility for those specific actions:

(e) The funding of a response to a discharge from a Federally operated or supervised facility or vessel is the responsiblity of the operating or supervising agency.

(f) The following agencies have funds available for certain discharge removal actions:

(1) EPA may provide funds to begin timely discharge removal actions when the OSC is an EPA representative.

(2) The USCG pollution control efforts are funded under "operating expenses." These funds are used in accordance with agency directives.

(3) The Department of Defense has two specific sources of funds which may be applicable to an oil discharge under appropriate circumstances. (This does not consider military resources which might be made available under specific conditions.)

(i) Funds required for removal of a sunken vessel or similar obstruction of navigation are available to the Corps of Engineers through Civil Works Appropriations, Operations and Maintenance, General.

(ii) The U.S. Navy may conduct salvage operations contingent on defense operational commitments, when funded by the requesting agency. Such funding may be requested on a direct cite basis.

(4) Pursuant to section 311(c)(2)(H) of the CWA, the State or States affected by a discharge of oil, may act where necessary to remove such discharge and may, pursuant to 33 CFR Part 153, be reimbursed from the pollution revolving fund for the reasonable costs incurred in such a removal.

(i) Removal by a State is necessary within the meaning of section 311(c)(2)(H) of the CWA when the OSC determines that the owner or operator of the vessel, onshore facility, or offshore facility from which the discharge occurs does not affect removal properly, or is unknown, and that;

(A) State action is required to minimize or mitigate significant threat to the public health or welfare which Federal action cannot minimize or mitigate, or

(B) Removal or partial removal can be done by the State at a cost which is less than or not significantly greater than the cost which would be incurred by the Federal departments or agencies.

(ii) State removal actions must be in compliance with this Plan in order to qualify for reimbursement.

(iii) State removal actions are considered to be Phase III actions, under the same definitions applicable to Federal agencies.

(iv) Actions taken by local governments in support of Federal discharge removal operations are considered to be actions of the State for purposes of this section. Federal regional and Federal local plans shall show what funds and resources are available from participating agencies under various conditions and cost arrangements. Interagency agreements may be necessary to specify when reimbursement is required.

Subpart F—Hazardous Substances Response

§ 300.61 General.

(a) This subpart establishes methods and criteria for determining the appropriate extent of response authorized by CERCLA: (1) When there is a release of a hazardous substance or there is a substantial threat of such a release into the environment; or, (2) when there is a release or substantial threat of a release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare.

(b) Section 104(a)(1) of CERCLA authorizes removal or remedial action unless it is determined that such removal or remedial action will be done properly by the owner or operator of the vessel or facility from which the release or threat of release emanates, or by any other responsible party. If appropriate response actions are not being taken or executed properly, including in a timely manner, the lead agency may initiate proper action, terminate any improper actions and should so advise any known responsible party, and complete response activities.

(c) In determining the need for and in planning or undertaking Fund-financed action, the lead agency should, to the extent practicable:

(1) Engage in prompt response.

(2) Encourage State participation in response actions (see § 300.62).

(3) Conserve Fund monies by encouraging private party clean-up.

(4) Be sensitive to local community concerns (see § 300.67).

(5) Rely on established technology, but also consider alternative and innovative technology when feasible and cost-effective.

(6) Involve the RRT in both removal and remedial response actions at appropriate decision-making stages.

(7) Encourage the involvement and sharing of technology by industry and other experts.

(8) Encourage the involvement of organizations to coordinate responsible party actions, foster site cleanup and provide technical advice to the public, Federal and State Government and industry.

(d) The lead agency should, as practicable, provide surveillance over actions taken by responsible parties to ensure that a response is conducted consistent with this Plan.

(e) (1) This subpart does not establish any preconditions to enforcement action by either the Federal or State Governments to compel response actions by responsible parties.

(2) While some of this subpart is oriented toward federally funded response actions, this subpart may be used as guidance concerning methods and criteria for response actions by other parties under other funding mechanisms. Except as provided in § 300.71, nothing in this part limits the rights of any person to seek recovery of response costs from responsible parties pursuant to CERCLA section 107.

(3) Activities by the Federal and State Governments in implementing this subpart are discretionary governmental functions. This subpart does not create in any private party a right to Federal response or enforcement action. This subpart does not create any duty of the Federal Government to take any response action at any particular time.

§ 300.62 State role.

(a)(1) States are encouraged to undertake actions authorized under this subpart. Section 104(d)(1) of CERCLA authorizes the Federal Government to enter into contracts or cooperative agreements with the State to take Fund-financed response actions authorized under CERCLA, when the Federal government determines that the State

has the capability to undertake such actions.

(2) Cooperative agreements or State Superfund contracts are unnecessary for response actions that are not fund-financed, including any State or other party actions. Coordination with EPA or USCG is encouraged in such situations, however.

(b) EPA will provide assistance from the Fund to States pursuant to a contract or cooperative agreement. The cooperative agreement can authorize States to undertake most actions specified in this Subpart.

(c) Contracts and cooperative agreements between the State(s) and Federal Government for Fund-financed remedial action are subject to section 104(c)(3) of CERCLA. Such agreements are not a precondition to access, information gathering, investigations, studies or liability pursuant to section 106 and 107 of CERCLA.

(d) Prior to remedial action as defined in section 101(24) of CERCLA, the State must make a firm commitment, through either a new or amended cooperative agreement or State contract, to provide funding for remedial implementation by:

(1) Authorizing the reduction of a State credit to cover its share of costs;

(2) Identifying currently available funds earmarked for remedial implementation; or

(3) Submitting a plan with milestones for obtaining necessary funds.

(e) State credits allowed under section 104(c)(3) of CERCLA must be documented on a site-specific basis for State out-of-pocket, non-Federal eligible response costs between January 1, 1978, and December 11, 1980. Prior to remedial investigation activity at a site, the State must submit its estimate of these costs as a part of the cooperative agreement application, or as a part of the EPA State agreement. State credits will be applied against State cost shares for federally funded remedial actions. A State cannot be reimbursed from the Fund for credit in excess of its matching share nor may the credit be applied to any other site.

(f) Pursuant to section 104(c)(2) of CERCLA, prior to determining any appropriate remedial action, the lead agency shall consult with the affected State or States.

(g) States are encouraged to participate in all RRT planning and response activities.

(h) State and local public safety organizations are normally expected to initiate public safety measures (e.g., actions to limit public access to site) and are responsible for directing evacuations pursuant to existing State/local procedures.

§ 300.63 Discovery or notification.

(a) A release may be discovered through:

(1) Notification in accordance with sections 103 (a) or (c) of CERCLA;

(2) Investigation by government authorities conducted in accordance with section 104(e) of CERCLA or other statutory authority;

(3) Notification of a release by a Federal or State permit holder when required by its permit;

(4) Inventory efforts or random or incidental observation by government agencies or the public;

(5) Other sources.

(b) All reports of releases should be made to the NRC. If direct reporting to the NRC is not practicable, reports may be made to the predesignated OSC at the nearest USCG or EPA office. All such reports shall be promptly relayed to the NRC.

(c) Upon receipt of a notification of a release, the NRC shall promptly notify the appropriate OSC or lead agency. The OSC or lead agency shall notify the Governor of the State affected by the release.

(d) (1) When the OSC is notified of a release which may require response pursuant to § 300.65(b), a preliminary assessment should be undertaken by the OSC pursuant to § 300.64.

(2) When notification indicates that action pursuant to § 300.65(b) is not required, site evaluation should be undertaken by the lead agency pursuant to § 300.66.

§ 300.64 Preliminary assessment for removal actions.

(a) A preliminary assessment of a release or threat of a release identified for possible CERCLA response pursuant to § 300.65 should be undertaken by the OSC as promptly as possible. The OSC should base the assessment on readily available information. This assessment may include but is not limited to:

(1) Identification of the source and nature of the release or threat of release;

(2) Evaluation of the threat to public health by HHS;

(3) Evaluation of the magnitude of the potential threat;

(4) Evaluation of factors necessary to make the determination of whether a removal is necessary; and

(5) Determination if a non-Federal party is undertaking proper response.

(b) A preliminary assessment of releases or threats of releases from hazardous waste management facilities may include collection or review of data such as site management practices, information from generators, photographs, analysis of historical photographs, literature searches, and personal interviews conducted as appropriate. In addition, a perimeter (off-site) inspection may be necessary to determine the potential for a release. Finally, if more information is needed, a site visit may be performed, if conditions are such that it may be performed safely.

(c) A preliminary assessment should be terminated when the OSC or lead agency determines:

(1) There is no release or threat of release;

(2) The source is neither a vessel nor a facility;

(3) The release does not involve a hazardous substance, nor a pollutant or contaminant;

(4) The amount, quantity and concentration released does not warrant Federal response;

(5) A party responsible for the release, or any other person, is providing appropriate response, and on-scene monitoring by the government is not required; or

(6) The assessment is completed.

(d) If it is determined during the assessment that natural resources have been, or are likely to be damaged, the OSC or lead agency should ensure that the trustees of the affected natural resources are notified in order that the trustees may initiate appropriate actions. Where practicable, the OSC should consult with trustees in making such determinations.

(e) If the preliminary assessment indicates that removal action under § 300.65 is not required, but that remedial actions under § 300.68 may be necessary, the lead agency should initiate site evaluation pursuant to § 300.66.

§ 300.65 Removals.

(a) (1) In determining the appropriate extent of action to be taken at a given release, the lead agency shall first review the preliminary assessment and the current site conditions to determine if removal action is appropriate.

(2) Where the responsible parties are known, an effort initially should be made, to the extent practicable considering the exigencies of the circumstances, to have them perform the necessary removal actions. Where responsible parties are unknown an effort initially should be made, to the extent practicable considering the exigencies of the circumstances, to locate them and have them perform the necessary removal action.

(3) This section does not apply to removal actions taken pursuant to section 104(b) of CERCLA. The criteria

for such actions are set forth in section 104(b).

(b) (1) At any release, regardless of whether it is included on the National Priorities List, where the lead agency determines that there is a threat to public health, welfare or the environment, based on the factors in subsection (b)(2), the lead agency may take any appropriate action to abate, minimize, stabilize, mitigate or eliminate the release or threat of release, or the threat resulting from that release or threat of release.

(2) The following factors shall be considered in determining the apropriateness of a removal action pursuant to this subsection:

(i) Actual or potential exposure to hazardous substances or pollutants or contaminants by nearby populations, animals or food chain;

(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(iii) Hazardous substances or pollutant or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate.

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

(vi) Threat of fire or explosion;

(vii) The availability of other appropriate Federal or State response and enforcement mechanisms to respond to the release;

(viii) Other situations or factors which may pose similar threats to public health, welfare or the environment.

(3) Removal actions, other than those authorized under section 104(b) of CERCLA, shall be terminated after $1 million has been obligated for the action or 6 months have elapsed from the date of initial response unless the lead agency determines that: (i) there is an immediate risk to public health, welfare or the environment, (ii) continued response actions are immediately required to prevent, limit, or mitigate an emergency, and (iii) such assistance will not otherwise be provided on a timely basis.

(4) If the lead agency determines that a removal action pursuant to this subsection is appropriate, actions should begin as soon as possible to prevent, minimize or mitigate the threat to public health, welfare or the environment. The lead agency should, at the earliest possible time, also make any necessary determinations contained in paragraph (b)(2) of this section.

(c) The following removal actions are as a general rule appropriate in the following situations; however, this list does not limit the lead agency from taking any other actions deemed necessary in response to any situation or preclude the lead agency from deferring response action to other appropriate Federal or State enforcement or response authorities.

(1) Fences, warning signs, or other security or site control precautions—where humans or animals have access to the release;

(2) Drainage controls (e.g. run-off or run-on diversion)—where precipitation or run-off from other sources (e.g. flooding) may enter the release area from other areas;

(3) Stabilization of berms, dikes, or impoundments—where needed to maintain the integrity of the structures;

(4) Capping of contaminated soils or sludges—where needed to reduce migration of hazardous substances, or pollutants or contaminants into soil, ground water or air.

(5) Using chemicals and other materials to retard the spread of the release or to mitigate its effects—where the use of such chemicals will reduce the spread of the release;

(6) Removal of highly contaminated soils from drainage areas—where removal will reduce the spread of contamination;

(7) Removal of drums, barrels, tanks or other bulk containers containing or that may contain hazardous substances or pollutants or contaminants—where it will reduce the likelihood of spillage, leakage, exposure to humans, animals or food chain, or fire or explosion.

(8) Provision of alternative water supply—where it will reduce the likelihood of exposure of humans or animals to contaminated water.

(d) Where necessary to protect public health or welfare, the lead agency may request that FEMA conduct a temporary relocation or evacuation.

If the lead agency determines that the removal action will not fully address the threat or potential threat posed by the release and the release may require remedial action, the OSC should coordinate with the RPM to ensure an orderly transition from removal to remedial response activities.

(f) Although Fund-financed removal actions and removal actions pursuant to CERCLA section 106 are not required to comply with other Federal, State and local laws governing the removal activity, including permit requirements, such removal actions shall, to the greatest extent practicable considering the exigencies of the circumstances, attain or exceed applicable or relevant Federal public health or environmental standards. Applicable standards are those standards that would be legally applicable if the actions were not undertaken pursuant to CERCLA section 104 or section 106. Relevant standards are those designed to apply to circumstances sufficiently similar to those encountered at CERCLA sites that their application would be appropriate, although not legally required. Federal criteria, guidance and advisories and State standards also should be considered in formulating the removal action.

(g) Fund-financed removal actions and removal actions pursuant to section 106 of CERCLA involving the storage, treatment, or disposal of hazardous substances or pollutants or contaminants at off-site facilities shall involve only such off-site facilities that are operating under appropriate Federal or State permits or authorization.

§ 300.66 Site evaluation phase and national priorities list determination.

(a) (1) *The Site Evaluation Phase.* This phase of response includes activities beginning with discovery of a release and extends through the initial evaluaton (preliminary assessment and site inspection—see § 300.84). The purpose of the site evaluation phase is to further categorize the nature of any releases and potential threats to public health, welfare, and the environment and to collect data as required to determine whether a release should be included on the National Priorities List (NPL). (See § 300.66 (b) and (c) below.)

(2) Pursuant to section 104 (b) and (e) of CERCLA and other authorities, the lead agency may undertake preliminary assessments and site inspections to gather appropriate information to determine if a release warrants response, and if so, its priority for response.

(3) For response actions that may be taken pursuant to § 300.66, a preliminary assessment consists of a review of existing data and may include an off-site reconnaissance. The purposes of such a preliminary assessment are:

(i) To eliminate from further consideration those releases where available data indicates no threat or potential threat to public health or the environment exists;

(ii) To determine if there is any potential need for removal action;

(iii) To establish priority for scheduling a site inspection.

(4) A site inspection consists of a visual inspection of the site and

routinely includes collection of samples. There are several major purposes for a site inspection:

(i) To determine which releases pose no threat or potential threat to public health and the environment;

(ii) To determine if there is any immediate threat to persons living or working near the release;

(iii) To collect data, where appropriate, to determine whether a release should be included on the NPL.

(b) *Methods for Establishing Priorities.* (1) Section 105(8)(A) of CERCLA requires the President to include as part of the Plan criteria for establishing priorities among releases and potential releases. Three mechanisms are set forth here for that purpose: The Hazard Ranking System (HRS); designation by the States of their top priority releases; and determination that a site poses a significant threat to public health, welfare or the environment as indicated in paragraph (b)(4) of this section. These criteria will be used to establish and amend the NPL (see § 300.66(c)).

(2) The primary mechanism for identifying releases for inclusion on the NPL will be scores calculated by applying the HRS (Appendix A).

(3) Each State may designate a release as the State's highest priority release by certifying in writing, signed by the Governor or the Governor's designee, that the release presents the greatest danger to public health, welfare or the environment among known releases in the State. Each State may designate one top priority site over the life of the NPL.

(4) In addition to those releases identified by their HRS scores as candidates for the NPL, EPA may identify for inclusion on the NPL any other release that the Agency determines is a significant threat to public health, welfare or the environment. EPA may make such a determination when the Department of Health and Human Services has issued a health advisory as a consequence of the release.

(c) (1) The National Priorities List. Section 105(8)(B) of CERCLA requires the President to establish a list of at least 400 releases and potential releases, based upon the criteria developed pursuant to section 105(8)(A) of the Act. CERCLA also requires the States to identify their priorities at least annually and requires that each State's designated top priority releases be included among the one hundred (100) highest priority releases, to the degree practicable. The process for establishing the NPL is set forth below.

(2) The NPL serves as a basis to guide the allocation of Fund resources among releases. Only those releases included on the NPL will be considered eligible for Fund-financed remedial action.

Inclusion on the NPL is not a precondition to liability pursuant to Agency action under CERCLA section 106 or to action under CERCLA 107, for recovery of non-Fund-financed costs or Fund-financed costs other than remedial construction costs.

(3) States that wish to submit candidates for the NPL must use the HRS (Appendix A of this part) to score the releases and furnish EPA with appropriate documentation for the scores.

(4) EPA will notify the States at least thirty days prior to the deadline for submitting candidate releases for the NPL or any revisions.

(5) EPA will review the States' HRS scoring documents and revise the application of the hazard ranking criteria when appropriate. EPA will add any additional priority releases known to the Agency after consultation with the States. Taking into account the HRS scores, the States' top priority releases, and the criteria specified in (b)(4) of this section, EPA will compile the NPL.

(6) Ranking of Releases. Minor differences in HRS scores among releases may not accurately differentiate among threats represented by the releases. Thus, releases having similar scores may be presented in groups on the NPL.

(7) Sites may be deleted from the NPL where no further response is appropriate. In deleting sites the Agency will consider whether any of the following criteria have been met:

(i) EPA in consultation with the State has determined that responsible or other parties have completed all appropriate response actions required at that time;

(ii) All appropriate Fund-financed response under CERCLA has been completed, and EPA has determined that no further cleanup by responsible parties is appropriate at that time; or

(iii) Based on a remedial investigation, EPA has determined that the release poses no significant threat to public health or the environment and, therefore, taking of remedial measures is not appropriate at that time.

(8) All releases deleted from the NPL are eligible for further Fund-financed remedial actions should future conditions warrant such action.

(9) EPA will submit the recommended NPL to the NRT for review and comment. EPA will publish any proposed revisions to the NPL for public comment.

(10) EPA will revise and publish the NPL at least annually.

§ 300.67 Community relations.

(a) A formal community relations plan must be developed and implemented for removal actions taken pursuant to 300.65 and for remedial action at NPL sites, including enforcement actions, except as provided for in subsection (b). Such plans must specify the communication activities which will be undertaken during the response and shall include provision for a pubilc comment period on the alternatives analysis undertaken pursuant to § 300.68. The use of the RRT to assist community relations activities should be considered in developing community relations plans.

(b) In the case of actions taken pursuant to 300.65 or enforcement action to compel response analogous to section 300.65, or other short term action needed to abate a threat to public health, welfare, or the environment, a spokesperson will be designated by the lead agency. The spokesperson will inform the community of actions taken, respond to inquiries, and provide information concerning the release. In such cases, if the action is of short duration, or if response is needed immediately, a formal plan is not necessary. However, if the removal action extends over 45 days, a formal plan must be developed and implemented.

(c) For all remedial actions at NPL sites including Fund-financed and enforcement actions, a community relations plan must be developed, and approved, prior to initiation of field activities and implemented during the course of the action. In enforcement actions a responsible party may be permitted with lead agency oversight to develop and implement appropriate parts of the community relations plan.

(d) In remedial actions at NPL sites including Fund-financed and enforcement actions, feasibility studies that outline alternative remedial measures must be provided to the public for review and comment for a period of not less than 21 calendar days. Such review and comment shall precede selection of the remedial response. Public meeting(s) should, as a general rule, be held during the comment period. The lead agency may also provide the public with an opportunity to comment during the development of the feasibility study.

(e) A document which summarizes the major issues raised by the public and how they are addressed must be included in the decision document approving the remedy.

(f) In enforcement actions in litigation under CERCLA section 106, the community relations plan, including

provision for public review of any feasibility study prepared for source control or management of migration measures, may be modified or adjusted at the direction of the court of jurisdiction or to accommodate the court calendar.

(g) Where parties agree to implement the permanent site remedy pursuant to an administrative order on consent, the lead agency shall provide public notice and a 30-day period for public comment, including comment on remedial measures. Where settlement is embodied in a consent decree, public notice and opportunity for public comment shall be provided in accordance with 28 CFR 50.7. A document summarizing the major issues raised by the public and how they are addressed will be prepared.

§ 300.68 Remedial action.

(a) (1) *Introduction.* Remedial actions are those responses to releases that are consistent with permanent remedy to prevent or minimize the release of hazardous substances or pollutants or contaminants so that they do not migrate to cause substantial danger to present or future public health, welfare, or the environment [CERCLA section 101(24)]. Fund-financed remedial action may be taken only at those releases on the NPL.

(2) The Remedial Project Manager (RPM) shall carry out responsibilities in a remedial action as delineated in § 300.33(b).

(3) Federal, State and local public health or environmental permits are not required for Fund-financed remedial action or remedial actions taken pursuant to Federal action under section 106 of CERCLA. However, remedial actions that involve storage, treatment, or disposal of hazardous substances, pollutants or contaminants at off-site facilities shall involve only such off-site facilities that are operating under appropriate Federal or State permits or authorization.

(b) (1) *State Involvement.* States are encouraged to undertake Fund-financed remedial response in accordance with § 300.62 of this Plan.

(2) States must meet the requirements of CERCLA section 104(c)(3) prior to undertaking Fund-financed remedial action.

(3) Planning activities associated with remedial actions taken pursuant to CERCLA section 104(b) shall not require a State cost share unless the facility was owned at the time of any disposal of hazardous substances therein by the State or a political subdivision thereof. such planning activities include, but are not limited to, remedial investigations, feasibility studies, and design of the proposed remedy. For sites owned by a State or its political subdivision, cost sharing commitment is required prior to remedial action.

(c) (1) *Scoping of Response Actions.* The lead agency, in cooperation with State(s), will examine available information and determine, based on the factors indicated in paragraph (c)(2) of this section, the type of response that may be needed to remedy the release. This scoping will serve as a basis for requesting funding for a necessary removal action, remedial investigation or feasibility study. Initial analysis should indicate the extent to which the release or threat of release may pose a threat to public health, welfare or the environment, the types of removal measures and/or remedial measures suitable to abate the threat, and set priorities for implementation of the measures.

(2) The following should be assessed in determining whether and what type of remedial and/or removal actions should be considered:

(i) Population, environmental, and welfare concerns at risk;

(ii) Routes of exposure;

(iii) Amount, concentration, hazardous properties, environmental fate (e.g. ability to bio-accumulate, persistence, mobility, etc), and form of the substance(s) persent;

(iv) Hydrogeological factors (e.g., soil permeability, depth to saturated zone, hydrologic gradients, proximity to a drinking water aquifer, floodplains and wetlands proximity);

(v) Climate (rainfall, etc.);

(vi) The extent to which the source can be adequately identified and characterized;

(vii) Whether substances at the site may be reused or recycled;

(viii) The likelihood of future releases if the substances remain on-site;

(ix) The extent to which natural or man-made barriers currently contain the substances and the adequacy of the barriers;

(x) The extent to which the substances have migrated or are expected to migrate from the area of their original location or new location if relocated and whether future migration may pose a threat to public health, welfare, or the environment;

(xi) Extent to which contamination levels exceed applicable or relevant Federal or State public health or environmental standards, advisories and criteria and the extent to which there are applicable or relevant standards for the storage, treatment, or disposal of materials of the type present at the release;

(xii) Contribution of the contamination to an air, land or water pollution problem;

(xiii) Ability of responsible party to implement and maintain the remedy until the threat is permanently abated;

(xiv) The availability of other appropriate Federal or State response and enforcement mechanisms to respond to the release;

(xv) Other appropriate matters may be considered.

(3) As a remedial investigation progresses, the project may be modified if the lead agency determines that, based on the factors in subparagraph (2) of this section, such modifications would be appropriate.

(d) *Operable Unit.* Response action may be conducted in operable units. Operable units may be conducted as remedial and/or removal actions.

(1) Response actions may be separated into operable units consistent with achieving a permanent remedy. These operable units may include removal actions pursuant to § 300.65(b), and/or remedial actions involving source controls, and/or management of migration.

(2) The RPM should recommend whether or not operable units should be implemented prior to selection of the appropriate final remedial measure.

(3) In some instances, implementation of operable units can and should begin before selection of an appropriate final remedial action if such measures are cost-effective and consistent with a permanent remedy. Compliance with § 300.68(b) is a prerequisite to implementing remedial operable units.

(e) *Remedial Investigation/Feasibility Study* (RI/FS). A RI/FS should be undertaken by the lead agency conducting the remedial action to determine the nature and extent of the threat presented by the release and evaluate proposed remedies. This includes sampling, monitoring, and exposure assessment, as necessary, and includes the gathering of sufficient information to determine the necessity for and proposed extent of remedial action. Part of the RI/FS may involve assessing whether the threat can be prevented or minimized by controlling the source of the contamination at or near the area where the hazardous substances were originally located (source control measures) and/or whether additional actions will be necessary because the hazardous substances have migrated from the area of or near their original location (management of migration). Planning for remedial action at these releases should also assess the need for removals.

During the remedial investigation, the original scoping of the project may be modified based on the factors in § 300.68(c).

(f) *Development of Alternatives.* (1) A reasonable number of alternatives must be developed including:

(i) Alternatives for treatment or disposal at an off-site facility, as appropriate;

(ii) Alternatives which attain applicable or relevant Federal public health or environmental standards;

(iii) As appropriate, alternatives which exceed applicable or relevant Federal public health or environmental standards;

(iv) Alternatives which do not attain applicable or relevant public health or environmental standards but will reduce the likelihood of present or future threat from the hazardous substances and which provide significant protection to public health, welfare, and the environment. This must include an alternative which most closely approaches the level of protection provided by the applicable or relevant standards.

(v) No action alternative.

(2) These alternatives should be developed based upon the analysis conducted under paragraphs (c), (d) and (e) of this section. The alternatives should consider and integrate waste minimization, destruction, and recycling where appropriate. This must include an alternative which most closely approaches the level of protection provided by the applicable or relevant standards.

(g) *Initial Screening of Alternatives.* The alternatives developed under paragraph (f) of this section will be subject to an initial screening to narrow the list of potential remedial actions for further detailed analysis. When an alternative is eliminated in screening, the rationale should be documented in the feasibility study. Three broad criteria should be used in the initial screening of alternatives:

(1) *Cost.* For each alternative, the cost of implementing the remedial action must be considered including operation and maintenance costs. An alternative that far exceeds the costs of other alternatives evaluated and that does not provide substantially greater public health or environmental protection, or technical reliability should usually be excluded from further consideration unless there is no other remedy which meets applicable or relevant Federal public health or environmental standards.

(2) *Acceptable Engineering Practices.* Alternatives must be feasible for the location and conditions of the release, applicable to the problem, and represent a reliable means of addressing the problem.

(3) *Effectiveness.* Those alternatives that do not effectively contribute to the protection of public health, welfare, and the environment should not be considered further. If an alternative has significant adverse effects, and very limited environmental benefits, it should also be excluded from further consideration.

(h) *Detailed Analysis of Alternatives.* (1) A more detailed evaluation will be conducted of the limited number of alternatives that remain after the initial screening in paragraph (g).

(2) The detailed analysis of each alternative should include:

(i) Refinement and specification of alternatives in detail, with emphasis on use of established technology. Innovative or advanced technology should be evaluated as an alternative to conventional technology;

(ii) Detailed cost estimation, including operation and maintenance costs, and distribution of costs over time;

(iii) Evaluation in terms of engineering implementation, reliability, and constructability;

(IV) An assessment of the extent to which the alternative is expected to effectively prevent, mitigate, or minimize threats to, and provide adequate protection of, public health, welfare, and the environment. This shall include an evaluation of the extent to which the alternative attains or exceeds applicable or relevant Federal public health or environmental standards advisories and criteria. Where the analysis determines that Federal public health or environmental standards are not applicable or relevant, the analysis should evaluate the risks of the various exposure levels projected or remaining after implemention of the alternative under consideration.

(V) An analysis of whether recycle/reuse, waste minimization or destruction or other advanced, innovative or alternative technologies is appropriate to reliably minimize present or future threats to public health, welfare or the environment.

(VI) An analysis of any adverse environmental impacts, methods for mitigating these impacts, and costs of mitigation.

(3) In performing the detailed analysis of alternatives, it may be necessary to gather additional data to complete the analysis.

(i) *Selection of Remedy.* (1) The appropriate extent of remedy shall be determined by the lead agency's selection of a cost-effective remedial alternative which effectively mitigates and minimizes threats to and provides adequate protection of public health, welfare and the environment. This will require selection of a remedy which attains or exceeds applicable or relevant Federal public health or environmental standards. In making this determination, the lead agency will consider the extent to which the Federal standard(s) are applicable or relevant to the specific circumstances at the site.

(2) In selecting the appropriate extent of remedy from among the alternatives which will achieve adequate protection of public health, welfare and the environment in accordance with (1) of this subsection, the lead agency will consider cost, technology, reliability, administrative and other concerns, and their relevant effects on public health, welfare and the environment.

(3) If there are no applicable or relevant Federal public health or environmental standards, the lead agency will select that cost-effective alternative which effectively mitigates and minimizes threats to and provides adequate protection of public health, welfare, and the environment, considering cost, technology, and the reliability of the remedy.

(4) Applicable or relevant Federal public health and environmental criteria and advisories and State standards shall be used, with appropriate adjustment, in determining the appropriate action.

(5) Notwithstanding paragraph (1)(i) of this section, the lead agency may select an alternative that does not meet applicable or relevant Federal public health or environmental standards in one of the following circumstances:

(i) The selected alternative is not the final remedy and will become part of a more comprehensive remedy.

(ii) All of the alternatives which meet applicable or relevant Federal standards fall into one or more of the following categories:

(A) *Fund-Balancing:* For Fund-financed responses only, considering the amount of money available in the Fund, the need for protection of public health, welfare and the environment at the facility under consideration is outweighed by the need for action at other sites which may present a threat to public health, welfare or the environment. Fund-balancing is not a consideration in determining the appropriate extent of remedy when the response will be performed or funded by a responsible party.

(B) *Technical Impracticality:* No alternative that attains or exceeds applicable or relevant Federal public health or environmental standards is technically practical to implement;

(C) *Unacceptable Environmental Impacts:* The alternatives that attain or exceed applicable or relevant Federal public health or environmental standards, if implemented, will result in significant adverse environmental impacts; or

(iii) Where the remedy is to be carried out pursuant to Federal action under CERCLA section 106, the Fund is unavailable, there is a strong public interest in expedited clean up, and the litigation probably would not result in the desired remedy.

(6) In the event that one of the circumstances in subsection (5) of this section applies, the lead agency shall select that alternative which most closely approaches the level of protection provided by applicable or relevant Federal public health or environmental standards.

(7) (i) If a factor under subsection (i)(5) is used in eliminating an alternative or in scaling down the extent of remedy it must be explained and documented in the appropriate decision document.

(ii) If relevant Federal public health or environmental criteria, advisories or guidance or State standards are not used or are adjusted, the decision documents must explain and document the reasons. The rationale for not using such standards, criteria, advisories or guidance may include one or more of the circumstances enumerated in § 300.68(i)(5).

(j) *Appropriate Actions:* The following remedial actions are as a general rule appropriate in the following situations; however, this list does not limit the lead agency from taking any other actions deemed necessary in response to any situation.

(1) In response to contaminated ground water—elimination or containment of the contamination to prevent further contamination, treatment and/or removal of such ground water to reduce or eliminate the contamination, physical containment of such ground water to reduce or eliminate potential exposure to such contamination, and/or restrictions on use of the ground water to eliminate potential exposure to the contamination.

(2) In response to contaminated surface water—elimination or containment of the contamination to prevent further pollution, and/or treatment of the contaminated water to reduce or eliminate its hazard potential;

(3) In response to contaminated soil or waste—actions to remove, treat, or contain the soil or waste to reduce or eliminate the potential for hazardous substances or pollutants or contaminants to contaminate other media (ground water, surface water, or air) and to reduce or eliminate the potential for such substances to be inhaled, absorbed, or ingested;

(4) In response to the threat of direct contact with hazardous substances or pollutants or contaminants—any of the actions listed in § 300.65(c) to reduce the likelihood of such contact or the severity of any effects from such contact.

(k) *Remedial Site Sampling:* (1) Sampling performed pursuant to Fund-financed remedial action must have written quality assurance site sampling plan. Sampling performed pursuant to the written quality assurance site sampling plan will be adequate if the quality assurance site sampling plan includes, at a minimum, the following elements:

(i) A description of the objectives of the sampling efforts with regard to both the phase of the sampling and the ultimate use of the data;

(ii) Sufficient specification of sampling protocol and procedures;

(iii) Sufficient sampling to adequately characterize the source of the release, likely transport pathways, and/or potential receptor exposure; and,

(iv) Specifications of the types, locations, and frequency of samples taken, taking into account the unique properties of the site, including the appropriate hydrological, geological, hydrogeological, physiographical, and meteorological properties of the site.

(2) In Fund-financed actions or actions under CERCLA section 106, the quality assurance site sampling plan must be reviewed and approved by the appropriate EPA Regional or Headquarters quality assurance office.

§ 300.69 Documentation and cost recovery.

(a) During all phases of response, documentation shall be collected and maintained to support all actions taken under this Plan, and to form the basis for cost recovery. In general, documentation should be sufficient to provide the source and circumstances of the condition, the identity of responsible parties, accurate accounting of Federal or private party costs incurred, impacts and potential impacts to the public health, welfare and environment. Where applicable, documentation should also include when the National Response Center received notification of a release of a reportable quantity and should clarify when Fund-balancing has been used to limit the Federal response.

(b) The information and reports obtained by the lead agency for Fund-financed response action should be transmitted to the RRC. Copies can then be forwarded to the NRT, members of the RRT, and others as appropriate. In addition, OSCs shall report as required by § 300.40 for all major releases and all Fund-financed removal actions taken.

(c) Information and documentation of actual or potential natural resource damages shall be made available to the trustees of affected natural resources.

(d) Actions undertaken by the participating agencies in response shall be carried out under existing programs and authorities when available. This plan intends that Federal agencies will make resources available, expend funds, or participate in responses to releases under their existing authority. Authority to expend resources will be in accordance with Agencies' statutes and, if required, through interagency agreements. Where the lead agency requests assistance from a Federal agency, that agency may be reimbursed. Specific interagency reimbursement agreements may be signed when necessary to ensure that the Federal resources will be available for a timely response to a release. The ultimate decision as to the appropriateness of expended funds rests with the agency tha is held accountable for such expenditures.

§ 300.70 Methods of remedying releases.

(a) The following section lists methods for remedying releases that may be considered by the lead agency in taking response action. This list of methods should not be considered inclusive of all possible methods of remedying releases.

(b) Engineering Methods for On-Site Actions—(1)(i) *Air emissions control*—The control of volatile gaseous compounds should address both lateral movements and atmospheric emissions. Before gas migration controls can be properly installed, field measurements to determine gas concentrations, pressures, and soil permeabilities should be used to establish optimum design for control. In addition, the types of hazardous substances present, the depth to which they extend, the nature of the gas and the subsurface geology of the release area should, if possible, be determined. Typical emission control techniques include the following:

(A) Pipe vents;

(B) Trench vents;

(C) Gas barriers;

(D) Gas collection;

(E) Overpacking.

(ii) *Surface water controls*—These are remedial techniques designed to reduce water infiltration and to control runoff at release areas. They also serve to reduce erosion and to stabilize the surface of covered sites. These types of

control technologies are usually implemented in conjunction with other types of control include the following:

(A) Surface seals;

(B) Surface water diversions and collection systems;

(1) Dikes and berms;

(2) Ditches, diversions, waterways;

(3) Chutes and downpipes;

(4) Levees;

(5) Seepage basins and ditches;

(6) Sedimentation basins and ditches;

(7) Terraces and benches;

(C) Grading;

(D) Revegetation.

(iii) *Ground water controls*—Ground water pollution is a particularly serious problem because, once an aquifer has been contaminated, the resource cannot usually be cleaned without the expenditure of great time, effort and resources. Techniques that can be applied to the problem with varying degrees of success are as follows:

(A) Impermeable barriers;

(1) Slurry walls;

(2) Grout curtains;

(3) Sheet pilings;

(B) Permeable treatment beds;

(C) Ground water pumping;

(1) Water table adjustment;

(2) Plume containment.

(D) Leachate control—Leachate control systems are applicable to control of surface seeps and seepage of leachate to ground water. Leachate collection systems consist of a series of drains which intercept the leachate and channel it to a sump, wetwell, treatment system, or appropriate surface discharge point. Technologies applicable to leachate control include the following:

(1) Subsurface drains;

(2) Drainage ditches;

(3) Liners.

(iv) *Contaminated water and sewer lines*—Sanitary sewers and municipal water mains located down gradient from hazardous waste disposal sites may become contaminated by infiltration of leachate or polluted ground water through cracks, ruptures, or poorly sealed joints in piping. Technologies applicable to the control of such contamination to water and sewer lines include:

(A) Grouting;

(B) Pipe relining and sleeving;

(C) Sewer relocation.

(2) Treatment technologies.

(i) *Gaseous emissions treatment*—Gases from waste disposal sites frequently contain malodorous and toxic substances, and thus require treatment before release to the atmosphere. There are two basic types of gas treatment systems:

(A) Vapor phase adsorption;

(B) Thermal oxidation.

(ii) *Direct waste treatment methods*—In most cases, these techniques can be considered long-term permanent solutions. Many of these direct treatment methods are not fully developed and the applications and process reliability are not well demonstrated. Use of these techniques for waste treatment may require considerable pilot plant work. Technologies applicable to the direct treatment of wastes are:

(A) Biological methods:

(1) Treatment via modified conventional wastewater treatment techniques;

(2) Anaerobic, aerated and facultative lagoons;

(3) Supported growth biological reactors.

(B) Chemical methods;

(1) Chlorination;

(2) Precipitation, flocculation, sedimentation;

(3) Neutralization;

(4) Equalization;

(5) Chemical oxidation.

(C) Physical methods:

(1) Air stripping;

(2) Carbon absorption;

(3) Ion exchange;

(4) Reverse osmosis;

(5) Permeable bed treatment;

(6) Wet air oxidation;

(7) Incineration.

(iii) *Contaminated soils and sediments*—In some cases where it can be shown to be cost-effective, contaminated sediments and soils will be treated on the site. Technologies available include:

(A) Incineration;

(B) Wet air oxidation;

(C) Solidification;

(D) Encapsulation;

(E) In site treatment:

(1) Solution mining (soil washing or soil flushing);

(2) Neutralization/detoxification;

(3) Microbiological degradation.

(c) Offsite Transport for Storage, Treatment, Destruction or Secure Disposition.

(1) General—Offsite transport or storage, treatment, destruction, or secure disposition offsite may be provided in cases where EPA determines that such actions:

(i) Are most cost-effective than other forms of remedial actions;

(ii) Will create new capacity to manage, in compliance with Subtitle C of the Solid Waste Disposal Act, hazardous substances in addition to those located at the affected facility; or

(iii) Are necessary to protect public health, welfare, or the environment from a present or potential risk which may be created by further exposure to the continued presence of such substances or materials.

(2) Contaminated soils and sediments may be removed from the site. Technologies used to remove contaminated sediments on soils include:

(i) Excavation;

(ii) Hydraulic dredging;

(iii) Mechanical dredging.

(d) Provision of Alternative water supplies can be provided in several ways.

(1) Provision of individual treatment units;

(2) Provision of water distribution system;

(3) Provision of new wells in a new location or deeper wells;

(4) Provision of cisterns;

(5) Provision of bottled or treated water;

(6) Provision of upgraded treatment for existing distribution systems.

(e) *Relocation*—Permanent relocation of residents, businesses, and community facilities may be provided where it is determined that human health is in danger and that, alone or in combination with other measures, relocation would be cost-effective and environmentally preferable to other remedial response. Temporary relocation may also be taken in appropriate circumstances.

§ 300.71 Other party responses.

(a) (1) As an alternative or in addition to any Fund-financed response, the lead agency may seek to have those persons responsible for the release respond to the release pursuant to CERCLA section 106 and other authorities.

(2) In addition, any person may undertake a response action to reduce or eliminate the release or threat of release of hazardous substances, or pollutants or contaminants. Section 107 of CERCLA authorizes persons to recover certain response costs consistent with this Plan from responsible parties.

(3) When a person (including a responsible party) other than the lead agency takes the response, the lead agency shall evaluate and approve the adequacy of proposals submitted when the response is:

(i) action taken pursuant to enforcement action under section 106 of CERCLA; or

(ii) action involving preauthorization of Fund expenditures, pursuant to § 300.25 (d) of this Plan.

(4) In evaluating proposed response actions specified in (a)(3) above, the lead agency shall consider the factors discussed in paragraphs (c) through (i) of § 300.68 for remedial actions and the

factors discussed in § 300.65(b) for removal actions. The lead agency will not, however, apply the Fund balancing considerations set forth in paragraph (i)(5)(B)(ii) (A) of section 300.68 to determine the appropriate extent of remedy provided by parties under paragraph (a)(3)(i) of this section.

(5) When a responsible party or other person takes a response action in a circumstance other than that specified in (a)(3) above, to be consistent with the NCP for purposes of recovering their costs pursuant to CERCLA section 107 (or for a State or Federal government response, to be not inconsistent), that person must:

(i) Where the action is a removal action, act in circumstances warranting removal and implement removal action consistent with § 300.65.

(ii) Where the action is a remedial action:

(A) Provide for an appropriate analysis of remedial alternatives;

(B) Consider the factors discussed in paragraphs (c) through (i) of § 300.68; and

(C) Select the cost-effective response;

(6) Persons performing response actions which are neither fund-financed nor pursuant to enforcement action under section 106 of CERCLA shall comply with all otherwise legally applicable Federal, State and local requirements, including permit requirements as appropriate.

(b) *Organizations.* Pursuant to CERCLA section 105(9) organizations may assist or conduct site response by:

(1) organizing responsible parties,

(2) initiating negotiation or other cooperative efforts,

(3) apportioning costs among liable parties,

(4) recommending appropriate settlements to the lead agency,

(5) conducting the RI/FS in accordance with this plan,

(6) evaluating and recommending appropriate remedies to the lead agency,

(7) implementing and overseeing response actions,

(8) obtaining assurances for continued site maintenance from responsible parties and/or,

(9) recommending sites for deletion after completion of all appropriate response action.

(c) *Certification.* Organizations may be certified to conduct site response actions. Certification is not necessary for, but may facilitate, Fund preauthorization under § 300.25(d) and lead agency evaluation of the adequacy of responsible party proposals.

(1) An organization may request certification by submitting a written request to the Administrator or designee establishing that the requesting organization has engineering, scientific, or other technical expertise necessary to evaluate the appropriate extent of remedy, oversee the design of remedial actions, and/or implement those actions.

(2) For each specific release being addressed, the certified organization must:

(i) Meet the requirements of § 300.25(d) if requesting preauthorization;

(ii) Have established procedures to recuse members of the organization that may have a conflict of interest with a party potentially responsible for the release.

(3) The Administrator will respond to a request for certification within 180 days of receipt of the request. The Administrator may grant certification, request further information relating to the requested certification or deny certification.

(4) Certification is effective for 2 years from the date of latest certification. If certification is not renewed at that time it automatically expires.

(5) Certification is not to be construed as approval by the lead agency of response actions undertaken by that organization. Certification does not authorize that organization to act on behalf of, or as a agent for the lead agency.

(6) Certification may be revoked at the discretion of the Administrator for failure to comply with this Plan or the requirements of CERCLA.

(d) *Releases from Liability.* Implementation of response measures by responsible parties, certified organizations or other persons does not release those parties from liability.

Subpart G—Trustees for Natural Resources

§ 300.72 Designation of Federal Trustees.

When natural resources are lost or damaged as a result of a discharge of oil release of a hazardous substance, the following officials are designated to act as Federal trustees pursuant to section 111(h)(1) of CERLA for purposes of sections 111(h)(1), 111(b) and 107(f) of CERCLA:

(a) (1) *Natural Resource Loss.* Damage to resources of any kind loclated on, over or under land subject to the management or protection of a Federal land managing agency, other than land or resources in or under United States waters that are navigable by deep draft vessels, including waters of the contiguous zone and parts of the high seas to which the National Contingency Plan is applicable and other waters subject to tidal influence.

(2) *Trustee.* The head of the Federal land managing agency, or the head of any other single entity designated by it to act as trustee for a specific resource.

(b) (1) *Natural Resource Loss.* Damage to fixed or non-fixed resources subject to the management or protection of a Federal agency, other than land or resources in or under United States waters that are navigable by deep draft vessels, including waters of the contiguous zone and parts of the high seas to which the National Contingency Plan is applicable and other waters subject to tidal influence.

(2) *Trustee.* The head of the Federal agency authorized to manage or protect these resources by statute, or the head of any other single entity designated by it to act as trustee for a specific resource.

(c) (1) *Natural Resource Loss.* Damage to a resource of any kind subject to the management or protection of a Federal agency and lying in or under United States waters that are navigable by deep draft vessels, including waters of the contiguous zone and parts of the high seas to which the National Contingency Plan is applicable and other waters subject to tidal influence, and upland areas serving as habitat for marine mammals and other species subject to the protective jurisdiction of NOAA.

(2) *Trustee.* The Secretary of Commerce or the head of any other single Federal entity designated by it to act as trustee for a specific resource; provided, however, that where resources are subject to the statutory authorities and jurisdictions of the Secretaries of the Departments of Commerce or the Interior, they shall act as co-trustees.

(d) (1) *National Resource Loss.* Damages to natural resources protected by treaty (or other authority pertaining to Native American tribes) or located on lands held by the United States in trust for Native American communities or individuals.

(2) *Trustee.* The Secretary of the Department of the Interior, or the head of any other single Federal entity disignated by it to act as trustee for specific resources.

§ 300.73 State trustees.

States may act as trustee for natural resouces within the boundary of a State belonging to, managed by, controlled by or appertaining to such State as provided by CERCLA.

§ 300.74 Responsibilities of trustees.

(a) The Federal trustees for natural resources shall be responsible for assessing damages to the resource in accordance with regulations promulgated under section 301(c) of

CERCLA, seeking recovery for the losses from the person resonsible or from the Fund, and devising and carring out restoration, rehabilitation and replacement plans pursuant to CERCLA.

(b) Where there are multiple trustees, because of co-existing or contiguous natural resources or concurrent jurisdictions, they shall coordinate and cooperate in carrying out these responsibilities.

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Appendix A—Uncontrolled Hazardous Waste Site Ranking System: A Users Manual (Federal Register Version; July 16, 1982)

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1.0 Introduction

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) (Pub. L. 96-510) requires the President to identify the 400 facilities in the nation warranting the highest priority for remedial action. In order to set the priorities, CERCLA requires that criteria be established based on relative risk or danger, taking into account the population at risk; the hazardous potential of the substances at a facility; the potential for contamination of drinking water supplies, for direct human contact, and for destruction of sensitive ecosystems; and other appropriate factors.

This document describes the Hazard Ranking System (HRS) to be used in evaluating the relative potential of uncontrolled hazardous substance facilities to cause human health or safety problems, or ecological or environmental damage. Detailed instructions for using the HRS are given in the following sections. Uniform application of the ranking system in each State will permit EPA to identify those releases of hazardous substances that pose the greatest hazard to humans or the environment. However, the HRS by itself cannot establish priorities for the allocation of funds for remedial action. The HRS is a means for applying uniform technical judgement regarding the potential hazards presented by a facility relative to other facilities. It does not address the feasibility, desirability, or degree of cleanup required. Neither does it deal with the readiness or ability of a State to carry out such remedial action as may be indicated, or to meet other conditions prescribed in CERCLA.

The HRS assigns three scores to a hazardous facility:

- S_M reflects the potential for harm to humans or the environment from migration of a hazardous substance away from the facility by routes involving ground water, surface water, or air. It is a composite of separate scores for each of the three routes.
- S_{FE} reflects the potential for harm from substances that can explode or cause fires.
- S_{DC} reflects the potential for harm from direct contact with hazardous substances at the facility (i.e., no migration need be involved).

The score for each hazard mode (migration, fire and explosion and direct contact) or route is obtained by considering a set of factors that characterize the potential of the facility to cause harm (Table 1). Each factor is assigned a numerical value (on a scale of 0 to 3, 5 or 8) according to prescribed guidelines. This value is then multiplied by a weighting factor yielding the factor score. The factor scores are then combined: scores within a factor category are added; when the total scores for each factor category are multiplied together to develop a score for ground water, surface water, air, fire and explosion, and direct contact.

In computing S_{FE} or S_{DC}, or an individual migration route score, the product of its factor category scores is divided by the maximum possible score, and the resulting ratio is multiplied by 100. The last step puts all scores on a scale of 0 to 100.

S_M is composite of the scores for the three possible migration routes;

$$S_M = \frac{1}{1.73}\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$$

where: S_{gw} = ground water route score
S_{sw} = surface water route score
S_a = air route score

The effect of this means of combining the route scores is to emphasize the primary (highest scoring) route in aggregating route scores while giving some additional consideration to the secondary or tertiary routes if they score high. The factor 1/1.73 is used simply for the purpose of reducing S_M scores to a 100-point scale.

The HRS does not quantify the probability of harm from a facility or the magnitude of the harm that could result, although the factors have been selected in order to approximate both those elements of risk. It is a procedure for ranking facilities in terms of the potential threat they pose by describing:

- The manner in which the hazardous substances are contained,
- The route by which they would be released,
- The characteristics and amount of the harmful substances, and
- The likely targets.

The multiplicative combination of factor category scores is an approximation of the more rigorous approach in which one would express the hazard posed by a facility as the product of the probability of a harmful occurrence and the magnitude of the potential damage.

The ranking of facilities nationally for remedial action will be based primarily on S_M. S_{FE} and S_{DC} may be used to identify facilities requiring emergency attention.

2.0 Using the Hazard Ranking System—General Considerations

Use of the HRS requires considerable information about the facility, its surroundings, the hazardous substances present, and the geological character of the area down to the aquifers that may be at risk. Figure 1 illustrates a format for recording general information regarding the facility

being evaluated. It can also serve as a cover sheet for the work sheets used in the evaluation.

Where there are no data for a factor, it should be assigned a value of zero. However, if a factor with not data is the only factor in a category (e.g., containment), then the factor is given a score of 1. If data are lacking for more than one factor in connection with the evaluation of either S_{gw}, S_{sw}, S_a, S_{FE} or S_{DC}, that route score is set at zero.

The following sections give detailed instructions and guidance for rating a facility. Each section begins with a work sheet designed to conform to the sequence of steps required to perform the rating. Guidance for evaluating each of the factors then follows. Using the guidance provided, attempt to assign a score for each of the three possible migration routes. Bear in mind that if data are missing for more than one factor in connection with the evaluation of a route, then you must set that route score at 0 (i.e., there is no need to assign scores to factors in a route that will be set at 0).

3.0 Ground Water Migration Route

3.1 *Observed Release.* If there is direct evidence of release of a substance of concern from a facility to ground water, enter a score of 45 on line 1 of the work sheet for the ground water route (Figure 2); then you need not evaluate route characteristics and containment factors (lines 2 and 3). Direct evidence of release must be analytical. If a contaminant is measured (regardless of frequency) in ground water or in a well in the vicinity of the facility at a significantly (in terms of demonstrating that a release has occurred, not in terms of potential effects) higher level than the background level, then quantitative evidence exists, and a release has been observed. Qualitative evidence of release (e.g., an oily or otherwise objectionable taste or smell in well water) constitutes direct evidence only if it can be confirmed that it results from a release at the facility in question. If a release has been observed, proceed to "3.4 *Waste Characteristics*" to continue scoring. If direct evidence is lacking, enter a value of 0 on line 1 and continue the scoring procedure by evaluating *Route Characteristics.*

3.2 *Route Characteristics. Depth to aquifer of concern* is measured vertically from the lowest point of the hazardous substances to the highest seasonal level of the saturated zone of the aquifer of concern (Figure 3). This factor is one indicator of the ease with which a pollutant from the facility could migrate to ground water. Assign a value as follows:

Distance	Assigned value
>150 feet	0
76 to 150 feet	1
21 to 75 feet	2
0 to 20 feet	3

Net precipitation (precipitation minus evaporation) indicates the potential for leachate generation at the facility. Use net seasonal rainfall (seasonal rainfall minus seasonal evaporation) data if available. If net precipitation is not measured in the region in which the facilty is located, calculate it by subtracting the mean annual lake evaporation for the region (obtained from Figure 4) from the normal annual precipitation for the region (obtained from Figure 5). EPA Regional Offices will have maps for areas outside the continental U.S. Assign a value as follows:

Net precipitation	Assigned value
−10 inches	0
−10 to +5 inches	1
+5 to +15 inches	2
+15 inches	3

Permeability of unsaturated zone (or intervening geological formations) is an indicator of the speed at which a contaminant could migrate from a facility. Assign a value from Table 2.

Physical state refers to the state of the hazardous substances at the time of disposal, except that gases generated by the hazardous substances in a disposal area should be considered in rating this factor. Each of the hazardous substances being evaluated is assigned a value as follows:

Physical state	Assigned value
Solid, consolidated or stabilized	0
Solid, unconsolidated or unstabilized	1
Powder or fine material	2
Liquid, sludge or gas	3

3.3 *Containment. Containment* is a measure of the natural or artificial means that have been used to minimize or prevent a contaminant from entering ground water. Examples include liners, leachate collection systems, and sealed containers. In assigning a value to this rating factor (Table 3), consider all ways in which hazardous substances are stored or disposed at the facility. If the facility involves more than one method of storage or disposal, assign the highest from among all applicable values (e.g., if a landfill has a containment value of 1, and, at the same location, a surface impoundment has a value of 2, assign containment a value of 2).

3.4 *Waste Characteristics.* In determining a waste characteristics score, evaluate the most hazardous substances at the facility that could migrate (i.e., if scored, containment is not equal to zero) to ground water. Take the substance with the highest score as representative of the potential hazard due to waste characteristics. Note that the substance that may have been observed in the release category can differ from the substance used in rating waste characteristics. Where the total inventory of substances in a facility is known, only those present in amounts greater than the reportable quantity (see CERCLA section 102 for definition) may be evaluated.

Toxicity and Persistence have been combined in the matrix below because of their important relationship. To determine the overall value for this combined factor, evaluate each factor individually as discussed below. Match the individual values assigned with the values in the matrix for the combined rating factor. Evaluate several of the most hazardous substances at the facility independently and enter only the highest score in the matrix on the work sheet.

Value for toxicity	Value for persistence			
	0	1	2	3
0	0	0	0	0
1	3	6	9	12
2	6	9	12	15
3	9	12	15	18

Persistence of each hazardous substance is evaluated on its biodegradability as follows:

Substance	Assigned value
Easily biodegradable compounds	0
Straight chain hydrocarbons	1
Substituted and other ring compounds	2
Metals, polycyclic compounds and halogenated hydrocarbons	3

More specific information is given in Tables 4 and 5.

Toxicity of each hazardous substance being evaluated is given a value using the rating scheme of Sax (Table 6) or the National Fire Protection Association (NFPA) (Table 7) and the following guidance:

Toxicity	Assigned value
Sax level 0 or NFPA level 0	0
Sax level 1 or NFPA level 1	1
Sax level 2 or NFPA level 2	2
Sax level 3 or NFPA level 3 or 4	3

Table 4 presents values for some common compounds.

Hazardous waste quantity includes all hazardous substances at a facility (as received) except that with a containment value of 0. Do not include amounts of contaminated soil or water; in such cases, the amount of contaminating hazardous substance may be estimated.

On occasion, it may be necessary to convert data to a common unit to combine them. In such cases, 1 ton=1 cubic yard=4 drums and for the purposes of converting bulk storage, 1 drum=50 gallons. Assign a value as follows:

Tons/cubic yards	Number of drums	Assigned value
0	0	0
1 to 10	1 to 40	1
11 to 62	41 to 250	2
63 to 125	251 to 500	3
126 to 250	501 to 1,000	4
251 to 625	1,001 to 2,500	5
626 to 1,250	2,501 to 5,000	6
1,251 to 2,500	5,001 to 10,000	7
>2,500	>10,000	8

3.5 *Targets. Ground water use* indicates the nature of the use made of ground water drawn from the aquifer of concern within 3 miles of the hazardous substance, including the geographical extent of the measurable concentration in the aquifer. Assign a value using the following guidance:

Ground water use	Assigned value
Unusable (e.g., extremely saline aquifer, extremely low yield, etc.)	0
Commercial, industrial or irrigation and another water source presently available; not used, but usable	1
Drinking water with municipal water from alternate unthreatened sources presently available (i.e., minimal hookup requirements); or commercial, industrial or irrigation with no other water source presently available	2
Drinking water; no municipal water from alternate unthreatened sources presently available	3

Distance to nearest well and population served have been combined in the matrix below to better reflect the important relationship between the distance of a population from hazardous substances and the size of the population served by ground water that might be contaminated by those substances. To determine the overall value for this combined factor, score each individually as discussed below. Match the individual values assigned with the values in the matrix for the total score.

Value for population served	Value for distance to nearest well				
	0	1	2	3	4
0	0	0	0	0	0
1	0	4	6	8	10
2	0	8	12	16	20
3	0	12	18	24	30
4	0	16	24	32	35
5	0	20	30	35	40

Distance to nearest well is measured from the hazardous substance (not the facility boundary) to the nearest well that draws water from the aquifer of concern. If the actual distance to the nearest well is unknown, use the distance between the hazardous substance and the nearest occupied building not served by a public water supply (e.g., a farmhouse). If a discontinuity in the aquifer occurs between the hazardous substance and all wells, give this factor a score of 0, except where it can be shown that the contaminant is likely to migrate beyond the discontinuity. Figure 6 illustrates how the distance should be measured. Assign a value using the following guidance:

Distance	Assigned value
>3 miles	0
2 to 3 miles	1
1 to 2 miles	2
2,000 feet to 1 mile	3
<2,000 feet	4

Population served by ground water is an indicator of the population at risk, which includes residents as well as others who would regularly use the water such as workers in factories or offices and students. Include employees in restaurants, motels, or campgrounds but exclude customers and travelers passing through the area in autos, buses, or trains. If aerial photography is used, and residents are known to use ground water, assume each dwelling unit has 3.8 residents. Where ground water is used for irrigation, convert to population by assuming 1.5 persons per acre of irrigated land. The well or wells of concern must be within three miles of the hazardous substances, including the area of known aquifer contamination, but the "population served" ned not be. Likewise, people within three miles who do not use water from the aquifer of concern are not to be counted. Assign a value as follows:

Population	Assigned value
0	0
1 to 100	1
101 to 1,000	2
1,001 to 3,000	3
3,001 to 10,000	4
>10,000	5

4.0 Surface Water Route

4.1 *Observed Release.* Direct evidence of release to surface water must be quantitative evidence that the facility is releasing contaminants into surface water. Quantitative evidence could be the measurement of levels of contaminants from a facility in surface water, either at the facility or downhill from it, that represents a significant (in terms of demonstrating that a release has occurred, not in terms of potential effects) increase over background levels. If direct evidence of release has been obtained (regardless of frequency), enter a value of 45 on line 1 of the work sheet (Figure 7) and omit the evaluation of the route characteristics and containment factors. If direct evidence of release is lacking, enter a value of 0 on line 1 and continue with the scoring procedure.

4.2 *Route characteristics. Facility slope and intervening terrain* are indicators of the potential for contaminated runoff or spills at a facility to be transported to surface water. The facility slope is an indicator of the potential for runoff or spills to leave the facility. Intervening terrain refers to the average slope of the shortest path which would be followed by runoff between the facility boundary and the nearest downhill surface water. This rating factor can be assessed using topographic maps. Table 8 shows values assigned to various facility conditions.

One-year 24-hour rainfall (obtained from Figure 8) indicates the potential for area storms to cause surface water contamination as a result of runoff, erosion, or flow over dikes. Assign a value as follows:

Amount of rainfall (inches)	Assigned value
<1.0	0
1.0 to 2.0	1
2.1 to 3.0	2
>3.0	3

Distance to the nearest surface water is the shortest distance from the hazardous substance, (not the facility or property boundary) to the nearest downhill body of surface water (e.g., lake or stream) that is on the course that runoff can be expected to follow and that at least occasionally contains water. Do not include man-made ditches which do not connect with other surface water bodies. In areas having less than 20 inches of normal annual precipitation (see Figure 5), consider intermittent streams. This factor indicates the potential for pollutants flowing overland and into surface water bodies. Assign a value as follows:

Distance	Assigned value
>2 miles	0
1 to 2 miles	1
1,000 feet to 1 mile	2
<1,000 feet	3

Physical state is assigned a value using the procedures in Section 3.2.

4.3 *Containment. Containment* is a measure of the means that have been taken to minimize the likelihood of a contaminant entering surface water either at the facility or beyond the facility boundary. Examples of containment are diversion structures and the use of sealed containers. If more than one type of containment is used at a facility, evaluate each separately (Table 9) and assign the highest score.

4.4 *Waste Characteristics.* Evaluate waste characteristics for the surface water route with the procedures described in Section 3.4 for the ground water route.

4.5 *Targets. Surface water use* brings into the rating process the use being made of surface water downstream from the facility. The use or uses of interest are those associated with water taken from surface waters within a distance of three miles from the location of the hazardous substance. Assign a value as follows:

Surface water use (fresh or salt water)	Assigned value
Not currently used	0
Commercial or industrial	1
Irrigation, economically important resources (e.g., shellfish), commercial food preparation, or recreation (e.g., fishing, boating, swimming)	2
Drinking water	3

Distance to a sensitive environment refers to the distance from the hazardous substance (not the facility boundary) to an area containing an important biological resource or to a fragile natural setting that could suffer an especially severe impact from pollution. Table 10 provides guidance on assigning a value to this rating factor.

Population served by surface water with water intake within 3 miles downstream from facility (or 1 mile in static surface water such as a lake) is a rough indicator of the potential hazard exposure of the nearby population served by potentially contaminated surface water. Measure the distance from the probable point of entry to surface water following the surface flow (stream miles). The population includes residents as well as others who would regularly use the water such as workers in factories or offices and students. Include employees in restaurants, motels, or campgrounds but exclude customers and travelers passing through the area in autos, buses and trains. The distance is measured from the hazardous substance, including observations in stream or sediment samples, regardless of facility boundaries. Where only residential houses can be counted (e.g., from an aerial photograph), and

residents are known to be using surface water, assume 3.8 individuals per dwelling unit. Where surface water is used for irrigation, convert to population by assuming 1.5 persons per acre of land irrigated. Assign a value as follows:

DISTANCE TO SURFACE WATER

Population	>3 miles	2 to 3 miles	1 to 2 miles	2,001 feet to 1 mile	0 to 2,000 feet
0	0	0	0	0	0
1 to 100	0	4	6	8	10
101 to 1,000	0	8	12	16	20
1,001 to 3,000	0	12	18	24	30
3,001 to 10,000	0	16	24	32	35
>10,000	0	20	30	35	40

5.0 Air Route

5.1 *Observed Release.* The only acceptable evidence of release for the air route is data that show levels of a contaminant at or in the vicinity of the facility that significantly exceed background levels, regardless of the frequency of occurrence. If such evidence exists, enter a value of 45 on line 1 of the work sheet (Figure 9); if not, assign line 1 a 0 value and then $S_a=0$. Record the date, location, and the sampling protocol for monitoring data on the work sheet. Data based on transitory conditions due to facility disturbance by investigative personnel are not acceptable.

5.2 *Waste Characteristics.* The hazardous substance that was observed for scoring the release category may be different from the substance used to score waste characteristics.

Reactivity and incompatibility, measures of the potential for sudden release of concentrated air pollutants, are evaluated independently, and the highest value for either is recorded on the work sheet.

Reactivity provides a measure of the fire/explosion threat at a facility. Assign a value based on the reactivity classification used by NFPA (see Table 11). Reactivity ratings for a number of common compounds are given in Table 4.

Incompatibility provides a measure of the increased hazard when hazardous substances are mixed under uncontrolled conditions, leading to production of heat, pressure, fire, explosion, violent reaction, toxic dusts, mists, fumes or gases, or flammable fumes or gases. Table 12 provides examples of incompatible combinations of materials. Additional information can be obtained from *A Method for Determining the Compatibility of Hazardous Wastes,* H. K. Hatayama, *et al.,* EPA-600/2-80-076 (1980). Assign a value using the following guidance:

Incompatibility	Assigned value
No incompatible substances are present	0
Present but do not pose a hazard	1
Present and may pose a future hazard	2
Present and posing an immediate hazard	3

Toxicty should be rated for the most toxic of the substances that can reasonably be expected to be transported away from the facility via the air route. Using the information given in Tables 4, 6, and 7, assign values as follows:

Toxicity	Assigned value
Sax Level 0 or NFPA level 0	0
Sax Level 1 or NFPA level 1	1
Sax Level 2 or NFPA level 2	2
Sax Level 3 or NFPA level 3 or 4	3

Hazardous Waste Quantity. Assign hazardous waste guantity a value as described in Section 3.4.

5.3 *Targets. Population within a four-mile radius* is an indicator of the population which may be harmed should hazardous substances be released to the air.

The distance is measured from the location of the hazardous substances, not from the facility boundary. The population to be counted includes persons residing within the four-mile radius as well as transients such as workers in factories, offices, restaurants, motels, or students. It excludes travelers passing through the area. If aerial photography is used in making the count, assume 3.8 individuals per dwelling unit. Select the highest value for this rating factor as follows:

DISTANCE TO POPULATION FROM HAZARDOUS SUBSTANCE

Population	1 to 4 miles	½ to 1 mile	¼ to ½ mile	0 to ¼ mile
0	0	0	0	0
1 to 100	9	12	15	18
101 to 1,000	12	15	18	21
1,001 to 3,000	15	18	21	24
3,001 to 10,000	18	21	24	27
>10,000	21	24	27	30

Distance to sensitive environment is an indicator of the likelihood that a region that contains important biological resources or that is a fragile natural setting would suffer serious damage if hazardous substances were to be released from the facility. Assign a value from Table 10.

Land use indicates the nature and level of human activity in the vicinity of a facility. Assign highest applicable value from Table 13.

6.0 Computing the Migration Hazard Mode Score, S_M

To compute S_M, complete the work sheet (Figure 10) using the values of S_{aw}, S_{sw}, and S_{gw} obtained from the sections.

7.0 Fire and Explosion

Compute a score for the fire and explosion hazard mode, S_{FE}, when either a state or local fire marshall has certified that the facility presents a significant fire or explosion threat to the public or to sensitive environments or there is a demonstrated fire and explosion threat based on filed observations (e.g., combustible gas indicator readings). Document the threat.

7.1 *Containment. Containment* is an indicator of the measures that have been taken to minimize or prevent hazardous substances at the facility from catching fire or exploding. Normally it will be given a value of 3 on the work sheet (Figure 11). If no hazardous substances that are individually ignitable or explosive are present and those that may be hazardous in combination are segregated and isolated so that they cannot come together to form incompatible mixtures, assign this factor a value of 1.

7.2 *Waste Characteristics. Direct evidence* of ignitability or explosion potential may exist in the form of measurements with appropriate instruments. If so, assign this factor a value of 3; if not, assign a value of 0.

Ignitability is an indictor of the threat of fire at a facility and the accompanying potential for release of air contaminants. Assign this rating factor a value based on the NEPA classification scheme (Table 14). Table 4 gives values for a number of common compounds. Assign values as follows:

Ignitability	Assigned value
Flashpoint 200 °F, or NEPA level 0	0
Flashpoint 140 °F to 200 °F or NEPA level 1	1
Flashpoint 80 °F to 140 °F or NEPA level 2	2
Flashpoint <80 °F or NEPA levels 3 or 4	3

Reactivity. Assign values as in Section 5.2.

Incompatibility. Assign values as in Section 5.2.

Hazardous Waste Quantity. Assign values as in Section 3.4.

7.3 *Targets. Distance to nearest population* is the distance from the hazardous substance to the nearest building or area in which one or more persons are likely to be located either for residential, educational, business, occupational, or recreational purposes. It is an indicator of the potential for harm to humans from fire and explosion. The building or area need not be off-site. Assign values as follows:

Distance	Assigned value
>2 miles	0
1 mile to 2 miles	1
½ mile to mile	2
210 feet to ½ mile	3
51 feet to 200 feet	4
0 to 50 feet	5

Distance to nearest building is and indicator of the potential for property damage as a result of fire or explosion. Assign a value as follows:

Distance	Assigned value
>½ mile	0
201 feet to ½ mile	1
51 to 200 feet	2
0 to 50 feet	3

Distance to nearest sensitive environment is measured from the hazardous substances, not from the facility boundary. It is an indicator of potential harm to a sensitive environment from fire or explosion at the facility. Select the highest value using the guidance provided in Table 15 *except* assign a value of 3 where fire could be expected to spread to a sensitive environment even though that environment is more than 100 feet from the hazardous substance.

Land Use. Assign values as in section 5.3.

Population within two-mile radius (measured from the location of the hazardous substance, not from the facility boundary) is a rough indicator of the population at risk in the event of fire or explosion at a facility. The population to be counted includes those residing within the two mile radius as well as people regularly in the vicinity such as workers in factories, offices, or students. It does not include travelers passing through the area. If aerial photography is used in making the count, assume 3.8 individuals per dwelling. Assign values as follows:

Population	Assigned value
0	0
1 to 100	1
101 to 1,000	2
1,001 to 3,000	3
3,001 to 10,000	4
>10,000	5

Number of buildings within two mile radius (measured from the hazardous substance, not from the facility boundary) is a rough indicator of the property damage that could result from fire and explosion at a facility. Assign values to this factor as follows:

Number of buildings	Assigned value
0	0
1 to 26	1
27 to 260	2
261 to 790	3
791 to 2,600	4
>2,600	5

8.0 Direct Contact

The direct contact hazard mode refers to the potential for injury by direct contact with hazardous substances at the facility.

8.1 *Observed Incident.* If there is a confirmed instance in which contact with hazardous substances at a facility has caused injury, illness, or death to humans or domestic or wild animals, enter a value of 45 on line 1 of the work sheet (Figure 12) and proceed to line 4 (toxicity). Document the incident giving the date, location and pertinent details. If no such instance is known, enter "0" on line 1 and proceed to line 2.

8.2 *Accessibility. Accessibility to hazardous substance* refers to the measures taken to limit access by humans or animals to hazardous substances. Assign a value using the following guidance:

Barrier	Assigned value
A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility; or an artificial or nautral barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times, through the gates or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility)	0
Security guard, but no barrier	1
A barrier, but no separate means to control entry	2
Barriers do not completely surround the facility	3

8.3 *Containment. Containment* indicates whether the hazardous substance itself is accessible to direct contact. For example, if the hazardous substance at the facility is in surface impoundments, containers (sealed or unsealed), piles, tanks, or landfills with a cover depth of less than 2 feet, or has been spilled on the ground or other surfaces easily contacted (e.g., the bottom of shallow pond or creek), assign this rating factor a value of 15. Otherwise, assign a value of 0.

8.4 *Waste Characteristics. Toxicity.* Assign a value as in section 3.4.

8.5 *Targets. Population within one-mile radius* is a rough indicator of the population that could be involved in direct contact incidents at an uncontrolled facility. Assign a value as follows:

Population	Assigned value
0	0
1 to 100	1
101 to 1,000	2
1,001 to 3,000	3
3,001 to 10,000	4
>10,000	5

Distance to a critical habitat (of an endangered species) is a rough measure of the probability of harm to members of an endangered species by direct contact with hazardous substance. Assign a value as follows:

Distance	Assigned value
>1 mile	0
½ to 1 mile	1
¼ to ½ mile	2
<¼ mile	3

TABLE 1

COMPREHENSIVE LIST OF RATING FACTORS

HAZARD MODE	FACTOR CATEGORY	FACTORS		
		GROUND WATER ROUTE	SURFACE WATER ROUTE	AIR ROUTE
Migration	Route Characteristics	• Depth to Aquifer of Concern • Net Precipitation • Permeability of Unsaturated Zone • Physical State	• Facility Slope and Interwening Terrain • One-Year 24-Hour Rainfall • Distance to Nearest Surface Water • Physical State	
	Containment	• Containment	• Containment	
	Waste Characteristics	• Toxicity/Persistence • Hazardous Waste Quantity	• Toxicity/Persistence • Hazardous Waste Quantity	• Reactivity/Incompatibility • Toxicity • Hazardous Waste Quantity
	Targets	• Ground Water Use • Distance to Nearest Well/ Population Served	• Surface Water Use • Distance to Sensitive Environment • Population Served/Distance to Water Intake Downstream	• Land Use • Population Within 4-Mile Radius • Distance to Sensitive Environment
Fire and Explosion	Containment	• Containment		
	Waste Characteristics	• Direct Evidence • Ignitability • Reactivity • Incompatibility • Hazardous Waste Quantity		
	Targets	• Distance to Nearest Population • Distance to Nearest Building • Distance to Nearest Sensitive Environment • Land Use • Population Within 2-Mile Radius • Number of Buildings Within 2-Mile Radius		
Direct Contact	Observed Incident	• Observed Incident		
	Accessibility	• Accessibility of Hazardous Substances		
	Containment	• Containment		
	Toxicity	• Toxicity		
	Targets	• Population Within 1-Mile Radius • Distance to Critical Habitat		

TABLE 2.— PERMEABILITY OF GEOLOGIC MATERIALS*

Type of material	Aproximate range of hydraulic conductivity	Assigned value
Clay, compact till, shale; unfractured metamorphic and igneous rocks.	$<10^{-7}$ cm/sec	0
Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomites, and sandstone; moderately permeable till.	$<10^{-5}>10^{-7}$ cm/sec.	1
Fine sand and silty sand; sandy loams; loamy sands; moderately permeable limestone, dolomites, and sandstone (no karst); moderately fractured igneous and metamorphic rocks, some coarse till.	$<10^{-3}>10^{-5}$ cm/sec.	2
Gravel, sand; highly fractured igneous and metamorphic rocks; permeable basalt and lavas; karst limestone and dolomite.	$>10^{-3}$ cm/sec	3

* Derived from:

Davis, S.N., *Porosity and Permeability of Natural Materials in Flow-Through Porous Media*, R.J.M. DeWest ed., Academic Press, New York, 1969.
Freeze, R.A. and J.A. Cherry, *Groundwater, Prentice-Hall, Inc., New York, 1979.*

TABLE 3.—CONTAINMENT VALUES FOR GROUND WATER ROUTE

[Assign containment a value of 0 if: (1) All the hazardous substances at the facility are underlain by an essentially non permeable surface (natural or artificial) and adequate leachate collection systems and diversion systems are present; or (2) there is no ground water in the vicinity. The value "0" does not indicate no risk. Rather, it indicates a significantly lower relative risk when compared with more serious sites on a national level. Otherwise, evaluate the containment for each of the different means of storage or disposal at the facility using the following guidance]

	Assigned value
A. Surface Impoundment	
Sound run-on diversion structure, essentially non permeable liner (natural or artificial) compatible with the waste, and adequate leachate collection system	0
Essentially non permeable compatible liner with no leachate collection system; or inadequate freeboard	1

TABLE 3.—CONTAINMENT VALUES FOR GROUND WATER ROUTE—Continued

[Assign containment a value of 0 if: (1) All the hazardous substances at the facility are underlain by an essentially non permeable surface (natural or artificial) and adequate leachate collection systems and diversion systems are present; or (2) there is no ground water in the vicinity. The value "0" does not indicate no risk. Rather, it indicates a significantly lower relative risk when compared with more serious sites on a national level. Otherwise, evaluate the containment for each of the different means of storage or disposal at the facility using the following guidance]

	Assigned value
Potentially unsound run-on diversion structure; or moderately permeable compatible liner	2
Unsound run-on diversion structure; no liner; or incompatible liner	3
B. Containers	
Containers sealed and in sound condition, adequate liner, and adequate leachate collection system	0
Containers sealed and in sound condition, no liner or moderately permeable liner	1
Containers leaking, moderately permeable liner	2

TABLE 3.—CONTAINMENT VALUES FOR GROUND WATER ROUTE—Continued

[Assign containment a value of 0 if: (1) All the hazardous substances at the facility are undertain by an essentially non permeable surface (natural or artificial) and adequate leachate collection systems and diversion systems are present; or (2) there is no ground water in the vicinity. The value "0" does not indicate no risk. Rather, it indicates a significantly lower relative risk when compared with more serious sites on a national level. Otherwise, evaluate the containment for each of the different means of storage or disposal at the facility using the following guidance]

	Assigned value
Containers leaking and no liner or incompatible liner	3
C. Piles	
Piles uncovered and waste stabilized; or piles covered, waste unstabilized, and essentially non permeable liner	0
Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system	1
Piles uncovered, waste unstabilized, moderately permeable liner, and no leachate collection system	2
Piles uncovered, waste unstabilized, and no liner	3
D. Landfill	
Essentially non permeable liner, liner compatible with waste, and adequate leachate collection system	0
Essentially non permeable compatible liner, no leachate collection system, and landfill surface precludes ponding	1
Moderately permeable, compatible liner, and landfill surface precludes ponding	2
No liner or incompatible liner; moderately permeable compatible liner; landfill surface encourages ponding; no run-on control	3

TABLE 4.—WASTE CHARACTERISTICS VALUES FOR SOME COMMON CHEMICALS

Chemical/ Compound	Toxicity [1]	Persistence [2]	Ignitability [3]	Reactivity [3]	Volatility [1]
Acetaldehyde	3	0	3	2	*3
Acetic acid	3	0	2	1	1
Acetone	2	0	3	0	3
Aldrin	3	3	1	0	*0
Ammonia, anhydrous	3	0	1	0	3
Aniline	3	1	2	0	1
Benzene	3	1	3	0	3
Carbon tetrachloride	3	3	0	0	3
Chlordane	3	3	*0	*0	*0
Chlorobenzene	2	2	3	0	1
Chloroform	3	3	0	0	3
Cresol-O	3	1	2	0	1
Cresol-M&P	3	1	1	0	1
Cyclohexane	2	2	3	0	3
Endrin	3	3	1	0	*0
Ethyl benzene	2	1	3	0	1
Formaldehyde	3	0	2	0	*3
Fromic acid	3	0	2	0	2
Hydrochloric acid	3	0	0	0	3
Isopropyl ether	3	1	2	1	3
Lindane	3	3	1	0	0
Methane	1	1	3	0	*3
Methyl ethyl ketone	2	0	3	0	2
Methyl parathion in kylene solution	3	3	3	2	*2

TABLE 4.—WASTE CHARACTERISTICS VALUES FOR SOME COMMON CHEMICALS—Continued

Chemical/ Compound	Toxicity [1]	Persistence [2]	Ignitability [3]	Reactivity [3]	Volatility [1]
Naphthalene	2	1	2	0	1
Nitric acid	3	0	0	0	*3
Parathion	3	3	1	2	*0
PCB	3	3	-0	-0	-0
Petroleum Kerosene (fuel oil No. 1)	3	1	2	0	*1
Phenol	3	1	2	0	1
Sulfuric Acid	3	0	0	2	1
Toluene	2	1	3	0	2
Trichlorobenzene	2	3	1	0	1
α-Trichloroethane	2	2	1	0	3
Xylene	2	1	3	0	1

[1] Sax, N.I., *Dangerous Properties of Industrial Materials*, Van Nostrand Rheinhold Co., New York, 4th ed., 1975. The highest rating listed under each chemical is used.
[2] JRB Associates, Inc., *Methodology for Rating the Hazard Potential of Waste Disposal Sites*, May 5, 1980.
[3] National Fire Protection Association, National Fire Codes, Vol. 13, No. 49, 1977.
* Professional judgment based on information contained in the U.S. Coast Guard CHRIS Hazardous Chemical Data, 1978.
Δ Professional judgment based on existing literature.

TABLE 5.—PERSISTENCE (BIODEGRADABILITY) OF SOME ORGANIC COMPOUNDS *

Value—3 Highly Persistent Compounds	
aldrin	heptachlor
benzopyrene	heptachlor epoxide
benzothiazole	1,2,3,4,5,7,7-heptachloronorbornene
benzothiophene	hexachlorobenzene
benzyl butyl phthalate	hexachloror-1,3,-butadiene
bromochlorobenzene	hexachlorocyclobexane
bromoform butanal	hexachloroethane
bromophenyl phynil ether	methyl benzothiazole
chlordane	pentachlorobiphenyl
chlorohydroxy benzophenone	pentachlorophenol
bis-chloroisoprophyl ether	1,1,2,2-tetrachloroacetone
m-chloronitrobenzene	tetrachlorobiphenyl
DDE	thiomethylbenzothiazole
DDT	trichlorobenzene
dibromobenzene	trichlorobiphenyl
dibutyl phthalate	trichlorofluoromethane
1,4-dichlorobenzene	2,4,6-trichlorophenol
dichlorodifluoroethane	triphenyl phosphate
dieldrin	bromodichloromethane
diethyl phtalate	bromoform
di (2-ethylhexyl) phthalate	carbon tetrachloride
dihenyl phthalate	chloroform
di-isobutyl phthalate	chloromocloromethane
dimethyl phthalate	dibromodifluoroethane
4,6-dinitro-2-aminophenol	tetrachloroethane
dipropyl phthalate	1,1,2-trichloroethane
endrin	
Value—2 Highly Persistent Compounds	
acenaphthylene	cis-2-ethyl-4-methyl-1,3-dioxolane
atrazine	trans-2-ehtyl-4-methyl-1,3-dioxolane
(diethyl) atrazine	guaiacol
barbital	2-hydroxyadiponitrile
borneol	isophorone
bromobenzene	indene
camphor	isoborneol
chlorobenzene	isopropenyl-r-isopropyl benzene
1,2,-bis-chloroethoxy ethane	2-methtoxy biphenyl
b-chloroethyl methyl ether	methyl biphenyl
chloromethyl ether	methyl chloride
chloromethyl ethyl ether	methylidene-methylene chloride
3-chloropyridine	nitrobenzene
di-t-butyl-p-benzoquinone	nitrophenole

TABLE 5.—PERSISTENCE (BIODEGRADABILITY) OF SOME ORGANIC COMPOUNDS *—Continued

dichloroethyl ether	nitrobenzene
dihyrocarvone	1,1,2,-trichloroethylene
dimethyl sulfoxide	trimethyl-trioxo-hexahydro-traizine isomer
2,6-dinitrotoluene	
Value—1 Somewhat Persistent Compounds	
acetylene dichloride	limonene
behenic acid, methyl ester	methyl ester of lignoceric acid
benzene	methane
benzene sulfonic acid	2-methyl-5-ethyl-pyridine
butyl benzene	methyl naphtalene
butyl bromide	methyl palmitate
e-caprolactam	methyl phenyl carbinol
carbon-disulfide	methyl stearate
o-cresol	naphthalene
decane	nonane
1,2-dichloroethane	octane
1,2-dimethoxy benzene	octyl chloride
1,3-dimethyl naphthalene	pentane
1,4-dimethyl phenol	phenyl benzoate
dioctyl adipate	phtalic andhydride
n-dodecane	propylbenzene
ethyl benene	1-terpinnel
2-ethyl-n-hexane	toluene
o-ethyltoluene	vinly benzene
isodecane	xylene
isoprophyl benzene	
Value—0 Highly Nonpersistent Compounds	
acetaldehyde	methyl benzoate
acetic acid	3-methyl butanol
acetone	methyl ethyl ketone
acetophenone	2-methylpropanol
benzoic acid	octadecane
di-isobutyl carbinol	pentadecane
docosane	pentanol
eicosane	propanol
ethanol	propylamine
ethylamine	tetradecane
hexadecane	n-tridecane
methanol	n-undecane

* JRB Associates, Inc., *Methodology for Rating the Hazard Potential for Waste Disposal Sites*, May 5, 1980.

TABLE 6.—SAX TOXICITY RATINGS*

0=No Toxicity

This designation is given to materials which fall into one of the following categories:

(a) Materials which cause no harm under any conditions of normal use.

(b) Materials which produce toxic effects on humans only under the most unusual conditions or by overwhelming dosage.

1=Slight Toxicity

(a) *Acute local.* Materials which on single exposures lasting seconds, minutes, or hours cause only slight effects on the skin or mucuous membranes regardless of the extent of the exposure.

(b) *Acute systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce only slight effects following single exposures lasting seconds, minutes, or hours, or following ingestion of a single dose, regardless of the quantity absorbed or the extent of exposure.

(c) *Chronic local.* Materials which on continuous or repeated exposures extending over periods of days, months, or years cause only slight and usually reversible harm to the skin or mucous membranes. The extent of exposure may be great or small.

(d) *Chronic systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce only slightly usually reversible effects extending over days, months, or years. The extent of the exposure may be great or small.

In general, those substances classified as having "slight toxicity" produce changes in the human body which are readily reversible and which will disappear following termination of exposure, either with or without medical treatment.

TABLE 6.—SAX TOXICITY RATINGS*—Continued

2=Moderate Toxicity

(a) *Acute local.* Materials which on single exposure lasting seconds, minutes, or hours cause moderate effects on the skin or mucous membranes. These effect may be the result of intense exposure for a matter or seconds or moderate exposure for a matter of hours.

(b) *Acute systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and produce moderate effects following single exposures lasting seconds, minutes, or hours, or following ingestion of a single dose.

(c) *Chronic local.* Materials which on continuous or repeated exposures extending over periods of days, months, or years cause moderate harm to the skin or mucous membranes.

(d) *Chronic systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which produce moderate effects following continuous or repeated exposure extending over periods of days, months, or years.

Those substances classified as having "moderate toxicity" may produce irreversible as well as reversible changes in the human body. Those changes are not of such severity as to threaten life or to produce serious physical impairment.

3=Severe Toxicity

(a) *Acute local.* Materials which on single exposure lasting seconds or minutes cause injury to skin or mucous membranes or sufficient severity to threaten life or the cause permanent physical impairment or disfigurement.

(b) *Acute systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which can cause injury of sufficient severity to threaten life following a single exposure lasting seconds, minutes, or hours, or following ingestion of a single dose.

(c) *Chronic local.* Materials which on continuous or repeated exposures extending over periods of days, months, or years can cause injury to skin or mucous membranes of sufficient severity to threaten life or cause permanent impairment, which disfigurement, or irreversible change.

(d) *Chronic systemic.* Materials which can be absorbed into the body by inhalation, ingestion, or through the skin and which can cause death or serious physical impairment following continuous or repeated exposures to small amounts extending over periods of days, months, or years.

*Sax, N.I., *Dangerous Properties of Industrial Materials*, Van Nostrand Rheinhold Company, New York, 4th Edition, 1975.

TABLE 7.—NFPA TOXICITY RATINGS*

0	Materials which on exposure under fire conditions would offer no health hazard beyond that of ordinary combustible material.
1	Materials only slightly hazardous to health. It may be desirable to wear self-contained breathing apparatus.
2	Materials hazardous to health, but areas may be entered freely with self-contained breathing apparatus.
3	Materials extremely hazardous to health, but areas may be entered with extreme care. Full protective clothing, including self-contained breathing apparatus, rubber gloves, boots and bands around legs, arms and waist should be provided. No skin surface should be exposed.
4	A few whiffs of the gas or vapor could cause death, or the gas, vapor, or liquid could be fatal on penetrating the fire fighters' normal full protective clothing which is designed for resistance to heat. For most chemicals having a Health 4 rating, the normal full protective clothing available to the average fire department will not provide adequate protection against skin contact with these materials. Only special protective clothing designed to protect against the specific hazard should be worn.

*National Fire Protection Association. *National Fire Codes*, Vol. 13, No. 49, 1977.

TABLE 8.—VALUES FOR FACILITY SLOPE AND INTERVENING TERRAIN

Facility slope	Intervening terrain: Terrain average slope <3%; or site separated from water body by areas of higher elevation	Terrain average slope 3 to 5%	Terrain average slope 5 to 8%	Terrain average slope >8%	Site in surface water
Facility is closed basin	6	6	6	6	3
Facility has average slope <3%	0	1	1	2	3
Average slope 3 to 5%	0	1	2	2	3
Average slope 5 to 8%	0	2	2	3	3
Average slope >8%	0	2	3	3	3

TABLE 9.—CONTAINMENT VALUES FOR SURFACE WATER ROUTE

[Assign containment a value of 0 if: (1) All the waste at the site is surrounded by diversion structures that are in sound condition and adequate to contain all runoff, spills, or leaks from the waste; or (2) intervening terrain precludes runoff from entering surface water. Otherwise, evaluate the containment for each of the different means of storage of disposal at the site and assign a value as follows]

	Assigned value
A. Surface Impoundment	
Sound diking or diversion structure, adequate freeboard, and no erosion evident	0
Sound diking or diversion structure, but inadequate freeboard	1
Diking not leakin, but potentially unsound	2
Diking unsound, leaking, or in danger of collapse	3
B. Containers	
Containers sealed, in sound condition, and surrounded by sound diversion or containment system	0
Containers sealed and in sound condition, but not surrounded by sound diversion or containment system	1
Containers leaking and diversion or containment structures potentially unsound	2
Containers leaking, and no diversion or containment structures or diversion structures leaking or in danger of collapse	3
C. Waste Piles	
Piles are covered and surrounded by sound diversion or containment system	0
Piles covered, wastes unconsolidated, diversion or containment system not adequate	1
Piles not covered, wastes unconsolidated, and diversion or containment system potentially unsound	2
Piles not covered, wastes unconsolidated, and no diversion or containment of diversion system leaking or in danger or collapse	3
D. Landfill	
Landfill slope precludes runoff, landfill surrounded by sound diversion system, or landfill has adequate cover material	0
Landfill not adequately covered and diversion system sound	1
Landfill not covered and diversion system potentially unsound	2
Landfill not covered and no diversion system present, or diversion system unsound	3

TABLE 10.—Values for Sensitive Environment (Surface Water)

Assigned value=	0	1	2	3
Distance to wetlands* (5 acre minimum):				
Coastal	>2 miles	1 to 2 miles	½ to 1 mile	<½ mile
Fresh Water	>1 mile	¼ to 1 mile	100 feet to ¼ mile	<100 feet
Distance to critical habitat (of endangered species)** or National Wildlife Refuge.	>1 mile	½ to 1 mile	¼ to ½ mile	<¼ mile

* Wetland is defined by EPA in the Code of Federal Regulations 40 CFR Part 230, Appendix A, 1980.
** Endangered species are designated by the U.S. Fish and Wildlife Service.

TABLE 11.—NFPA REACTIVITY RATINGS

NFPA level	Assigned value
0 Materials which are normally stable even under fire exposure conditions and which are not reactive with water	0
1 Materials which in themselves are normally stable but which may become unstable at elevated temperatures and pressures or which may react with water with some release of energy but not violently	1
2 Materials which in themselves are normally unstable and readily undergo violent chemical change but do nto detonate. Includes materials which can undergo chemical change with rapid release of energy at normal temperatures and pressures or which can undergo violent chemical changed at elevated temperatures and pressures. Also includes those materials which may react violently with water or which may form potentially explosive mixtures with water	2

TABLE 11.—NFPA REACTIVITY RATINGS—Continued

NFPA level		Assigned value
3	Materials which in themselves are capable of detonation or of explosive decomposition or of explosive reaction but which requires a strong initiating source or which must be heated under confinement before initiation. Includes materials which are sensitive to thermal or mechanical shock at elevated temperatures and pressures or which react explosively with water without requiring heat or confinement	3
4	Materials which in themselves are readily capable of detonation or of explosive decomposition or explosive reaction at normal temperatures and pressures. Includes materials which are sensitive to mechanical or localized thermal shock	3

TABLE 12.—INCOMPATIBLE MATERIALS

[In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted]

Group 1-A	*Group 1-B*
Acetylene sludge	Acid sludge
Alkaline caustic liquids	Acid and water
Alkaline cleaner	Battery acid
Alkaline corrosive liquids	Chemical cleaners
Alkaline corrosive battery fluid	Electrolyte acid
Caustic wastewater	Etching acid liquid or solvent
Lime sludge and other corrosive alkalies	Pickling liquor and other corrosive acids
Lime wastewater	Spent acid
Lime and water	Spent mixed acid
Spent caustic	Spent sulfuric acid

Potential consequences: Heat generation; violent reaction.

Group 2-A	*Group 2-B*
Aluminum	Any waste in Group 1-A or 1-B
Beryllium	
Calcium	
Lithium	
Potassium	
Sodium	
Zinc Powder	
Other reactive metals and metal hydrides	

Potential consequences: Fire or explosion; generation of flammable hydrogen gas.

Group 3-A	*Group 3-B*
Alcohols	Any concentrated waste in Groups 1-A or 1-B
Water	Calcium
	Lithium
	Metal hydrides
	Potassium
	SO_2Cl_2, $SOCl_2$, PCl_3, CH_3SiCl_3
	Other water-reactive waste

Potential consequences: Fire, explosion, or heat generation; generation of flammable or toxic gases.

TABLE 12.—INCOMPATIBLE MATERIALS—Continued

[In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted]

Group 4-A	*Group 4-B*
Alcohols	Concentrated Group 1-A or 1-B wastes
Aldehydes	Group 2-A wastes
Halogenated hydrocarbons	
Nitrated hydrocarbons	
Unsaturated hydrocarbons	
Other reactive organic compounds and solvents	

Potential consequences: Fire, explosion, or violent reaction.

Group 5-A	*Group 5-B*
Spent cyanide and sulfide solutions	Group 1-B wastes

Potential consequences: Generation of toxic hydrogen cyanide or hydrogen sulfide gas.

TABLE 12.—INCOMPATIBLE MATERIALS—Continued

[In the lists below, the mixing of a Group A material with a Group B material may have the potential consequence as noted]

Group 6-A	*Group 6-B*
Chlorates	Acetic acid and other organic acids
Chlorine	Concentrated mineral acids
Chlorites	Group 2-A wastes
Chromic acid	Group 4-A wastes
Hypochlorites	Other flammable and combustible wastes
Nitrates	
Nitric acid, fuming	
Perchlorates	
Permanganates	
Peroxides	
Other strong oxidizers	

Potential consequences: Fire, explosion, or violent reaction.

Source: Hazardous Waste Management Law, Regulations, and Guidelines for the Handling of Hazardous Waste. California Department of Health, Sacramento, California, February 1975.

TABLE 13.—VALUES FOR LAND USE (AIR ROUTE)

Assigned value=	0	1	2	3
Distance to Commercial-Industrial.	>1 mile	½ to 1 mile	¼ to ½ mile	<¼ mile
Distance to National/State Parks, Forests, Wildlife Reserves, and Residential Areas.	>2 miles	1 to 2 miles	¼ to 1 mile	<¼ mile
Distance to Agricultural Lands (in Production within 5 years):				
Ag Land	>1 mile	½ to 1 mile	¼ to ½ mile	<¼ mile
Prime Ag Land *	2 miles	1 to 2 miles	½ to 1 mile	<½ mile
Distance to Historic/Landmark Sites (National Register of Historic Places and National Natural Landmarks).				Within view of site or if site is subject to significant impacts

* Defined in the Code of Federal Regulations, 7 CFR 657.5, 1961.

TABLE 14.—NFPA IGNITABILITY LEVELS AND ASSIGNED VALUES

NFPA level	Assigned value
4 Very flammable gases, very volatile flammable liquids, and materials that in the form of dusts or mists readily form explosive mixtures when dispersed in air	3
3 Liquids which can be ignited under all normal temperature conditions. Any materials that ignites spontaneously at normal temperatures in air	
2 Liquids which must be moderately heated before ignition will occur and solids that readily give off flammable vapors	2
1 Materials that must be preheated before ignition can occur. Most combustible solids have a flammability rating of 1	1
0 Materials that will not burn	0

TABLE 15.—VALUES FOR SENSITIVE ENVIRONMENTS (FIRE AND EXPLOSION)

Assigned value=	0	1	2	3
Distance to Wetlands*	>100 feet			<100 feet
Distance to critical habitat**	>⅛ mile	1,000 feet to ⅛ mile	100 to 1,000 feet	<100 feet

* Wetland is defined by EPA in the Code of Federal Regulations 40 CFR Part 230, Appendix A, 1980.
** Designated by the U.S. Fish and Wildlife Service.

BILLING CODE 6560-50-M

Facility Name: _____

Location: _____

EPA Region: _____

Person(s) in Charge of the Facility: _____

_____

_____

Name of Reviewer: _____ Date: _____

General Description of the Facility:

(For example: landfill, surface impoundment, pile, container; types of hazardous substances; location of the facility; contamination route of major concern; types of information needed for rating; agency action, etc.)

_____

_____

_____

_____

_____

_____

_____

Scores: S_M = (S_{gw} = S_{sw} = S_a =)

S_{ps} =

S_{DC} =

Figure 1

HRS COVER SHEET

GROUND WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	OBSERVED RELEASE	0 45	1		45	3.1
	If observed release is given a score of 45, proceed to line 2. If observed release is given a score of 0, proceed to line 2.					
2	ROUTE CHARACTERISTICS					3.2
	Depth to Aquifer of Concern	0 1 2 3	2		6	
	Net Precipitation	0 1 2 3	1		3	
	Permeability of the Unsaturated Zone	0 1 2 3	1		3	
	Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score				15	
3	CONTAINMENT	0 1 2 3	1		3	3.3
4	WASTE CHARACTERISTICS					3.4
	Toxicity/Persistence	0 3 6 9 12 15 18	1		18	
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score				26	
5	TARGETS					3.5
	Ground Water Use	0 1 2 3	3		9	
	Distance to Nearest Well/Population Served	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40	
	Total Targets Score				49	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				57,330	
7	Divide line 6 by 57,330 and multiply by 100			S_{gw} =		

Figure 2

Ground Water Route Work Sheet

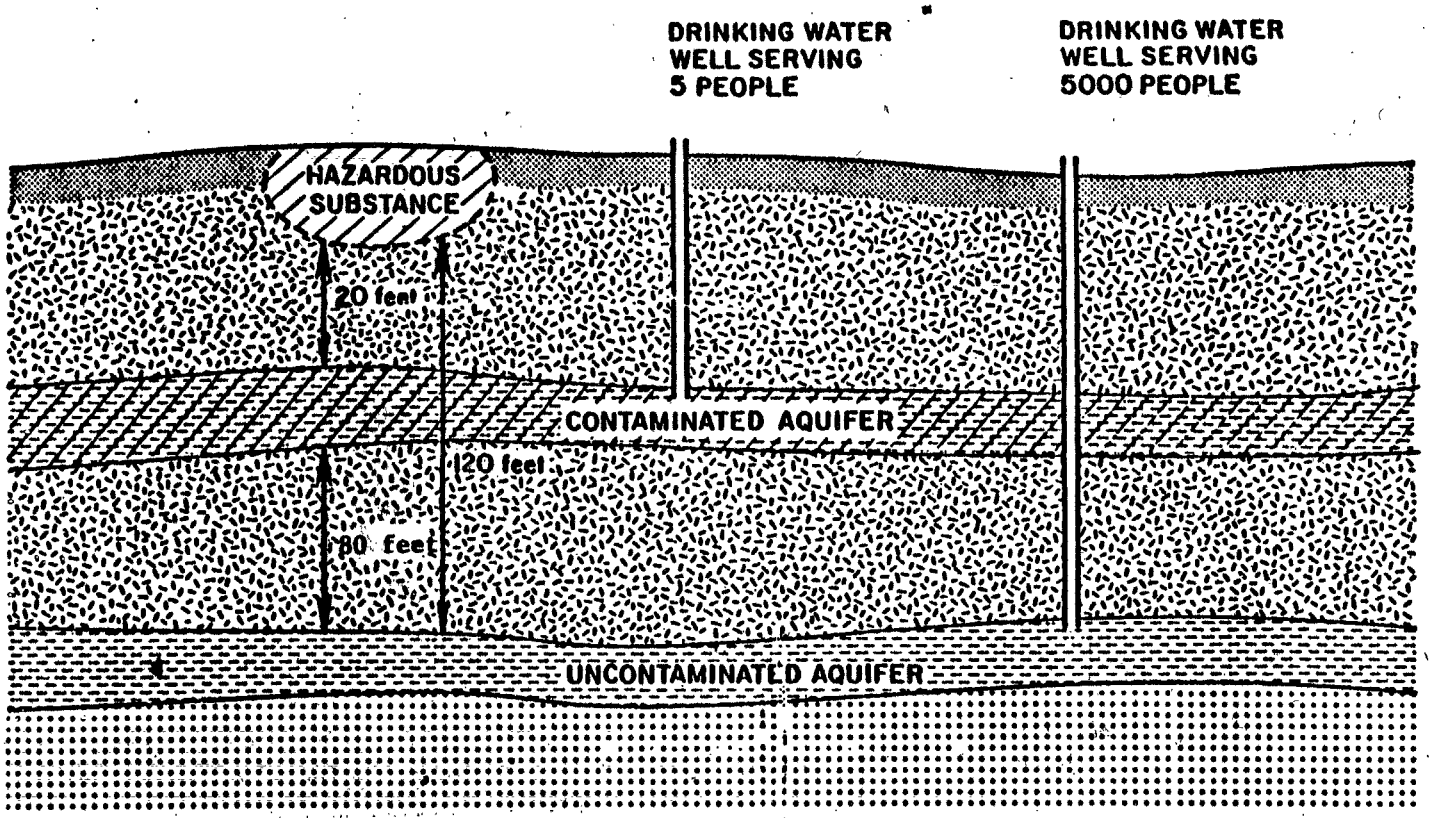
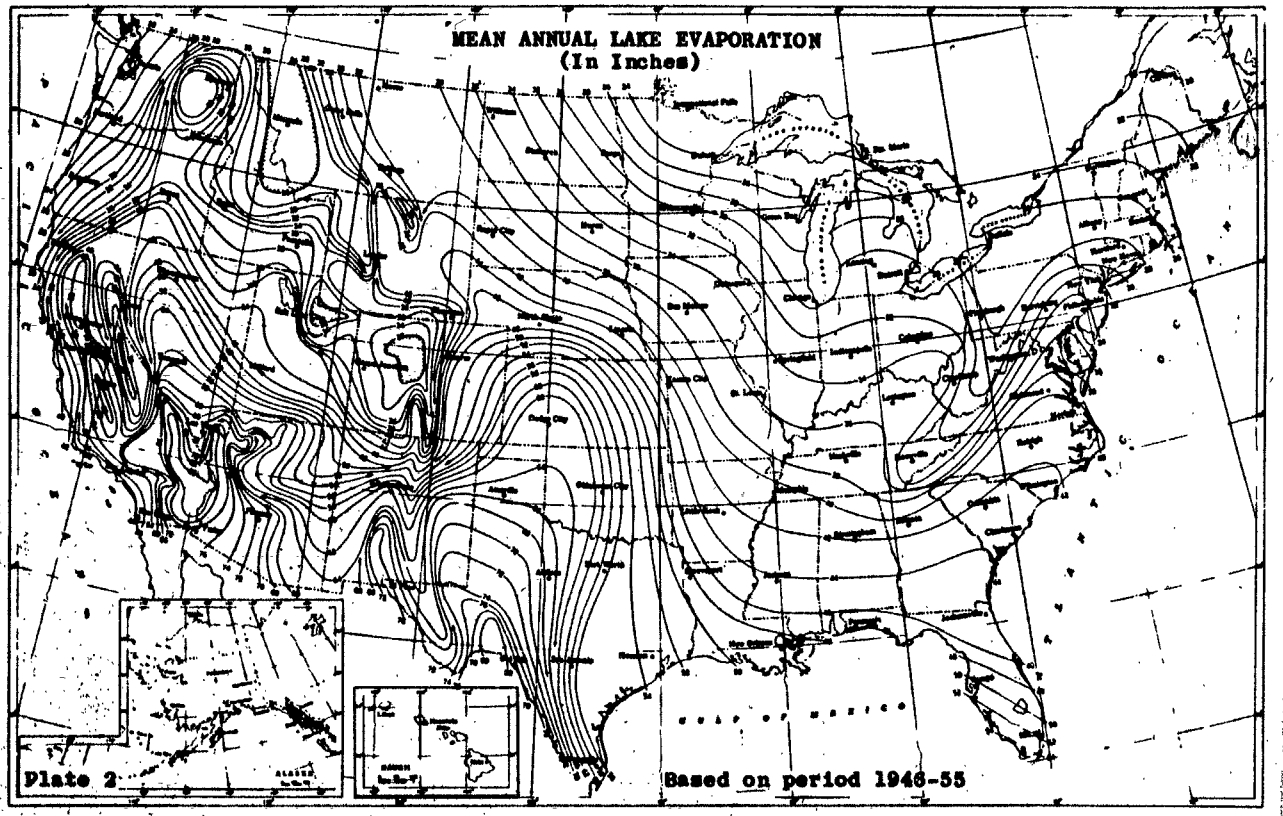


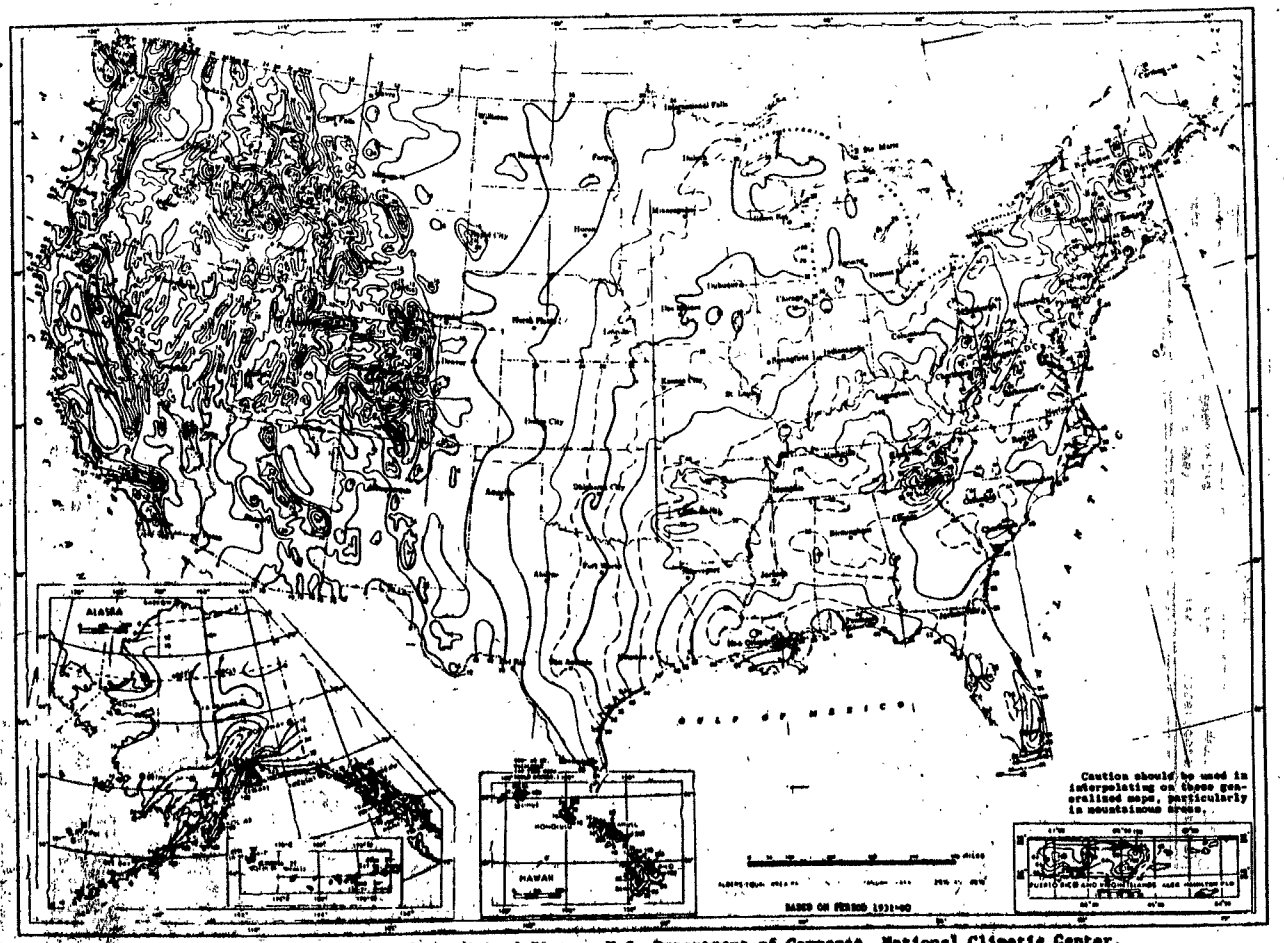
FIGURE 3. DEPTH TO AQUIFER OF CONCERN*

*Treat target and route characteristics factors consistently. For example, if the upper aquifer is the aquifer of concern, then the "depth to aquifer of concern" is 20 feet and the "population served" is 5 persons. If the lower aquifer is "of concern", the "depth" is 120 feet (assuming no known contamination below the indicated "hazardous substance") and the "population" is 5000 persons. If the upper aquifer is contaminated and the lower aquifer is "of concern", the "depth" would be 80 feet (vertical distance between hazardous substance and aquifer of concern) and the population would be 5000 persons.



Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Ashville, N.C., 1979.

FIGURE 4
MEAN ANNUAL LAKE EVAPORATION
(IN INCHES)



Source: Climatic Atlas of the United States, U.S. Department of Commerce, National Climatic Center, Asheville, N.C., 1979.

FIGURE 5
NORMAL ANNUAL TOTAL PRECIPITATION (INCHES)

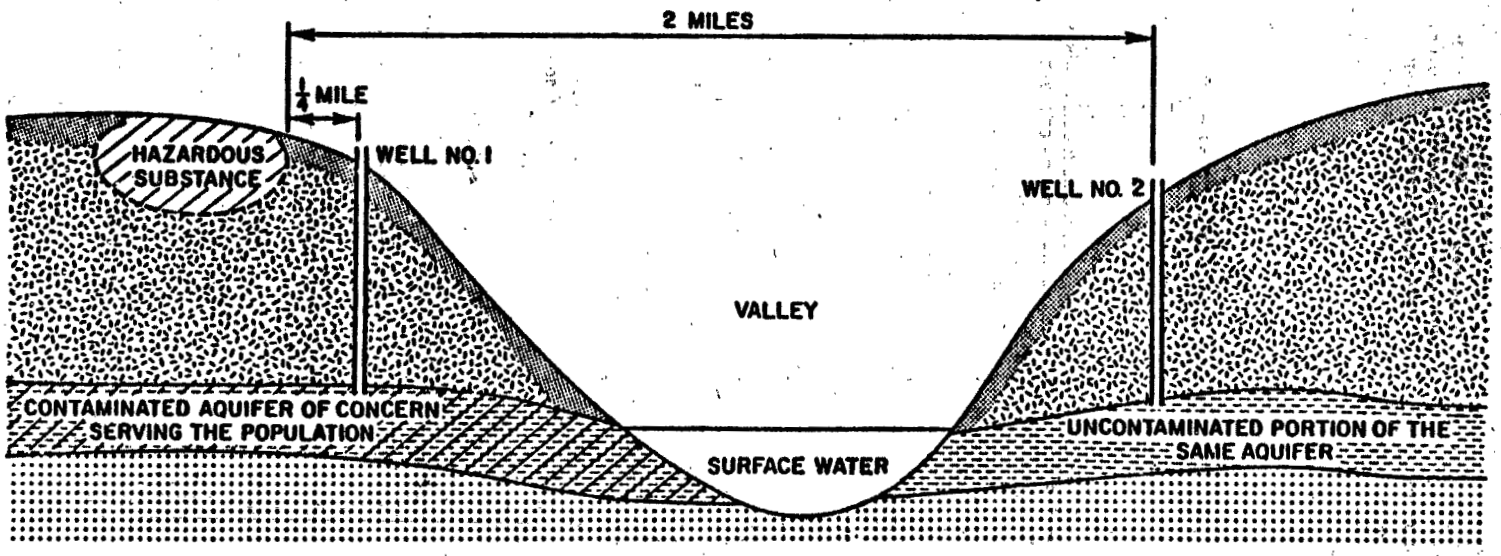


FIGURE 6

Distance to Nearest Well

In the situation depicted above, the distance between the hazardous substance and the nearest well (No. 1) is ¼ mile. If well No. 1 did not exist, the distance to well No. 2 would be immaterial since there is a discontinuity in the aquifer (surface water) between it and the hazardous substance. Under such circumstances, the factor score would be "0". However, if it could be demonstrated that the contaminant had migrated beyond the discontinuity, then the distance to the nearest well would be 2 miles (assuming well No. 1 does not exist).

SURFACE WATER ROUTE WORK SHEET

	Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1	OBSERVED RELEASE	0 45	1		45	4.1
	If observed release is given a value of 45, proceed to line 4. If observed release is given a value of 0, proceed to line 2.					
2	ROUTE CHARACTERISTICS					4.2
	Facility Slope and Intervening Terrain	0 1 2 3	1		3	
	1-yr. 24-hr. Rainfall	0 1 2 3	1		3	
	Distance to Nearest Surface Water	0 1 2 3	2		6	
	Physical State	0 1 2 3	1		3	
	Total Route Characteristics Score				15	
3	CONTAINMENT	0 1 2 3	1		3	4.3
4	WASTE CHARACTERISTICS					4.4
	Toxicity/Persistence	0 3 6 9 12 15 18	1		18	
	Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
	Total Waste Characteristics Score				26	
5	TARGETS					4.5
	Surface Water Use	0 1 2 3	3		9	
	Distance to a Sensitive Environment	0 1 2 3	2		6	
	Population Served/ Distance to Water Intake Downstream	0 4 6 8 10 12 16 18 20 24 30 32 35 40	1		40	
	Total Targets Score				55	
6	If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				64,350	
7	Divide line 6 by 64,350 and multiply by 100			S_{sw} =		

Figure 7

Surface Water Route Work Sheet

Source: Rainfall Frequency Atlas of the United States, Technical Paper No. 40, U.S. Department of Commerce, U.S. Government Printing Office, Washington, D.C., 1963.

FIGURE 8
1-YEAR 24-HOUR RAINFALL
(INCHES)

AIR ROUTE WORK SHEET						
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 OBSERVED RELEASE	0 45	1		45	5.1
Date and Location:					
Sampling Protocol:					
If line 1 is 0, then S = 0. Enter on line 4. If line 1 is 45, then proceed to line 2.					
2 WASTE CHARACTERISTICS					5.2
Reactivity and Incompatibility	0 1 2 3	1		3	
Toxicity	0 1 2 3	3		9	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 TARGETS					5.3
Population Within 4-Mile Radius	0 9 12 15 18 21 24 27 30	1		30	
Distance to Sensitive Environment	0 1 2 3	2		6	
Land Use	0 1 2 3	1		3	
Total Targets Score				39	
4 Multiply 1 x 2 x 3				35,100	
5 Divide line 4 by 35,100 and multiply by 100	S_a =				

Figure 9

Air Route Work Sheet

	S	S^2
Groundwater Route Score (S_{gw})		
Surface Water Route Score (S_{sw})		
Air Route Score (S_a)		
$S_{gw}^2 + S_{sw}^2 + S_a^2$		
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73$		S_M =

Figure 10

WORKSHEET FOR COMPUTING S_M

FIRE AND EXPLOSION WORK SHEET					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Containment	1 3	1		3	7.1
2 Waste Characteristics					7.2
Direct Evidence	0 3	1		3	
Ignitability	0 1 2 3	1		3	
Reactivity	0 1 2 3	1		3	
Incompatibility	0 1 2 3	1		3	
Hazardous Waste Quantity	0 1 2 3 4 5 6 7 8	1		8	
Total Waste Characteristics Score				20	
3 Targets					7.3
Distance to Nearest Population	0 1 2 3 4 5	1		5	
Distance to Nearest Building	0 1 2 3	1		3	
Distance to Sensitive Environment	0 1 2 3	1		3	
Land Use	0 1 2 3	1		3	
Population Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Buildings Within 2-Mile Radius	0 1 2 3 4 5	1		5	
Total Target Score				24	
4 Multiply 1 x 2 x 3 x 4				1,440	
5 Divide line 5 by 1,440 and multiply by 100			S_{FE} =		

Figure 11

DIRECT CONTACT WORK SHEET					
Rating Factor	Assigned Value (Circle One)	Multiplier	Score	Max. Score	Ref. (Section)
1 Observed Incident	0 45	1		45	8.1
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	1		3	8.2
3 Containment	0 15	1		15	8.3
4 Waste Characteristics Toxicity	0 1 2 3	5		15	8.4
5 Targets					8.5
Population within a 1-mile radius	0 1 2 3 4 5	4		20	
Distance to a critical habitat	0 1 2 3	4		12	
Total Targets Score				32	
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				21,600	
7 Divide line 6 by 21,600 and multiply by 100			S_{DC} =		

Figure 12

Direct Contact Work Sheet

2. 40 CFR Subpart H, § 300.84 is amended by revising paragraphs (a)–(e) as follows:

Subpart H—Use of Dispersants and Other Chemicals

§ 300.84 Authorization of use.

(a) The OSC, with the concurrence of the EPA representative to the RRT and the concurrence of the States with jurisdiction over the navigable waters polluted by the oil discharge, may authorize the use of dispersants, surface collecting agents, and biological additives on the oil discharge, provided that the dispersants, surface collecting agents, or additives are on the NCP Product Schedule. The OSC should consult with other appropriate Federal agencies as practicable when considering the use of such products.

(b) The OSC, with the concurrence of the EPA representative to the RRT and the concurrence of the States with jurisdiction over the navigable waters polluted by the oil discharge, may authorize the use of burning agents on a case-by-case basis. The OSC should consult with other appropriate Federal Agencies as practicable when considering the use of such products.

(c) The OSC may authorize the use of any dispersant, surface collecting agent, other chemical agent, burning agent, or biological additive (including products not on the NCP Product Schedule) without obtaining the concurrence of the EPA representative to the RRT or the States with jurisdiction over the navigable waters polluted by the oil discharge, when in the judgment of the OSC, the use of the product is necessary to prevent or substantially reduce a hazard to human life. The OSC is to inform the EPA RRT representative and the affected States of the use of a product as soon as possible and, pursuant to the provisions in paragraph (a) of this section, obtain their concurrence for its continued use once the threat to human life has subsided.

(d) Sinking agents shall not be authorized for application to oil discharges.

(e) RRTs should consider, as part of their planning activities, the appropriateness of using the dispersants, surface collecting agents, or biological additives listed on the NCP Products Schedule, and the appropriateness of using burning agents. Regional contingency plans should address the use of such products in specific contexts. If the RRT and the States with jurisdiction over the waters of the area to which a plan applies approve in advance the use of certain products as described in the plan, the

OSC may authorize the use of the products without obtaining the concurrence of the EPA representative to the RRT or of the States and without consultation with other appropriate Federal agencies.

Appendix

Note.—This is an Appendix to the document and will not appear in the Code of Federal Regulations.

Memorandum

Subject: CERCLA Compliance With Other Environmental Statutes

From: Lee M. Thomas, Assistant Administrator

To: Regional Administrator Regions I–X

This memorandum sets forth the Environmental Protection Agency (EPA) policy on the applicability of the standards, criteria, advisories, and guidance of other State and Federal environmental and public health statutes to actions taken pursuant to sections 104 and 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). This policy addresses considerations for on-site and off-site actions taken under CERCLA.

I. Discussion

The National Contingency Plan (NCP) establishes the process for determining appropriate removal and/or remedial actions at Superfund sites. In the course of this process, EPA will give primary consideration to the selection of those response actions that are effective in preventing or, where prevention is not practicable, minimizing the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health, welfare, or the environment. As a general rule, this can be accomplished by pursuing remedies that meet the standards of applicable or relevant Federal public health or environmental laws. However, because of the unique circumstances at particular sites, there may be alternatives that do not meet the standards of other laws, but which still provide protection of public health, welfare, and the environment.

Although response actions which prevent hazardous substances from migrating into the environment are seen as the most effective under CERCLA, actions which minimize migration must also be considered since CERCLA primarily addresses inadequate *past* disposal practices and resulting unique site conditions. At certain sites, it may be technically impracticable, environmentally unacceptable or excessively costly to implement a response action that prevents migration or restores the site to its original, uncontaminated condition.

II. Policy

Section 104 of CERCLA requires that for off-site remedial actions, storage, destruction, treatment or secure disposition be in compliance with subtitle C of Resource Conservation and Recovery Act (RCRA). CERCLA is silent, however, concerning the requirements of other laws with regard to all other response actions taken pursuant to sections 104 and 106. As a general rule, the Agency's policy is to attain or exceed applicable or relevant environmental and public health standards in CERCLA response actions unless one of the specifically enumerated situations is present. Where such a situation is present and a standard is not used, the Agency must document and explain the reasons in the decision documents. Federal criteria and advisories, and State standards also will be *considered* in fashioning CERCLA remedies and, if appropriate, relevant portions will be used. If EPA does not use a relevant part of these standards, criteria or advisories in the remedial action, the decision documents will state the reasons.

A. On-site Response Actions

(1) For removal actions, EPA's policy is to pursue actions that will meet applicable or relevant standards, and criteria of other Federal environmental and public health laws to the maximum extent practicable, considering the exigencies of the situation.

(2) For remedial actions, EPA's policy is to pursue remedies that attain or exceed applicable and relevant standards of other Federal public health and environmental laws, unless specific circumstances, identified below, exist.

CERCLA procedural and administrative requirements will be modified to provide safeguards similar to those provided under other laws. Application for and receipt of permits is not required for on-site response actions taken under the Fund-financed or enforcement authorities of CERCLA.

B. Off-Site Response Actions

CERCLA removal and remedial activities that involve the removal of hazardous substances from a CERCLA site to off-site facilities for proper storage, treatment or disposal must be in compliance with all applicable or relevant standards of Federal environmental and public health statutes.

Off-site facilities that are used for storage, treatment, or disposal of Superfund wastes must have all appropriate permits or authorizations.

If the facility or process that is being considered for receipt of the Superfund wastes has not been permitted or authorized, the State or responsible party will be required to obtain all appropriate permits. A State's responsibility for obtaining any appropriate Federal, State or local permits (e.g. RCRA, TSCA, NPDES, Clean Air, etc.) will be specified in a contract or cooperative agreement with the State as part of its assurances required under section 104(c) of CERCLA.

III. Federal and State Requirements That May Be Relevant or Applicable to Response Actions

Federal and State environmental standards, guidance and advisories fall into two categories:

- Federal standards that are relevant or applicable.
- Other standards, criteria, advisories or guidance to be considered.

A complete list of both categories of requirements is attached. This list is our initial effort. A revised and annotated list will be included in the forthcoming Guidance for Feasibility Studies.

A. Federal Standards That Are Relevant or Applicable

Applicable standards are those standards that would be specifically triggered by the circumstances associated with the proposed Superfund remedy except for the fact that the proposed action would be undertaken pursuant to CERCLA section 104 or section 106.

Relevant standards are those designed to apply to circumstances sufficiently similar to those encountered at CERCLA sites in which their application would be appropriate at a specific site although not legally required. Standards also are relevant if they would be legally applicable to CERCLA § 104 or § 106 actions but for legal technicalities such as trigger dates or definitions. For example, TSCA PCB standards would be relevant even though the PCBs were produced prior to January 1976, which triggers TSCA requirements.

B. Other Requirements, Advisories or Guidances To Be Considered

This category includes other standards, criteria, advisories and guidance that may be useful in developing Superfund remedies. These requirements, advisories and guidances were developed by EPA, other Federal Agencies and the States. The data underlying these requirements may be used at Superfund sites in an appropriate way.

IV. Implementation

A. Removal Actions

For both on and off-site removal actions, the On-Scene-Coordinator should consult with the Regional Response Team within the framework of the Regional Contingency Plan to determine the most effective action.

(1) *On-site.* For on-site removal actions, the OSC should attempt to *attain* all Federal applicable or relevant public health or environmental standards. The OSC also should *consider* other Federal criteria, guidance and advisories as well as State standards in formulating the removal action. However, because removal actions often involve situations requiring expeditous action to protect public health, welfare, or the environment, it may not always be feasible to fully meet them. In those circumstances where they cannot be attained, the decision documents, OSC reports, or other documents should specify the reasons.

(2) *Off-site.* Off-site facilities that are used for storage, treatment, or disposal of Superfund wastes must have all appropriate permits or authorizations.

B. Remedial Actions

1. *Presentation and Analysis of Alternatives.* As part of the feasibility study (FS), at least one alternative for each of the following must, at a minimum, be evaluated within the requirements of the feasibility study guidance and presented to the decision-maker.

(a) Alternatives for treatment or disposal in an off-site facility, as appropriate;[1]

(b) Alternativs which *attain* applicable and relevant Federal public health or environmental standards;

(c) As appropriate, alternatives which *exceed* applicable and relevent public health or environmental standards;

(d) Alternatives which do not attain applicable or relevant public health or environmental standards but will reduce the likelihood of present or future threat from the hazardous substances. This must include an alternative which closely approaches the level of protection provided by the applicable or relevant standards and meets CERCLA's objective of adequately protecting public health, welfare and environment;

(e) A no action alternative.

In some cases, there may be some overlap between these alternatives.

2. *Selection of Remedy.* The decision-maker will consider all of the alternatives arrayed in the feasibility study and will give primary consideration to remedies that attain or exceed applicable or relevant Federal public health and environmental standards. Where the selected remedy involves an EPA standard, criterion, or advisory, the decision-maker will ensure appropriate coordination with affected EPA programs.

In appropriate cases, the decision-maker may select a remedial action that includes both on and off-site components.

The decision-maker may select an alternative that does not attain applicable or relevant standards in one of the following circumstances, recognizing that a consideration in making this determination is the extent to which the standard was intended to apply to the specific circumstances present at the site.[2]

a. The selected alternative is not the final remedy and will become part of a more comprehensive remedy;

b. All of the alternatives which meet applicable or relevant standards fall into one or more of the following categories:

(i) *Fund-Balancing*—For Fund-financed actions only; exercise the Fund-balancing provisions of CERCLA section 104(c)(4);

(ii) *Technically impracticality*—It is technically impractical from an engineering perspective to achieve the standard at the specific site in question;

(iii) *Unacceptable environmental impacts*—All alternatives that attain or exceed standards would cause unacceptable damage to the environment; or

(c) Where the remedy is to be carried out pursuant to CERCLA section 106; the Hazardous Response Trust Fund is unavailable or would be used; there is a strong public interest in expedited clean up; and the litigation probably would not result in the desired remedy.

Where one of these situations is present, the decision-maker *may* select an alternative which does not attain or exceed applicable or relevant public health or environmental standards. The basis for not meeting the standard must be fully documented and explained in the appropriate decision documents.

The Agency anticipates that most of CERCLA remedial actions *will* attain or exceed applicable or relevant public health or environmental standards. However, where the specific circumstances discussed above preclude the selection of a remedy that attains standards, the decision-maker will select the alternative that *most closely approaches the level of protection* provided by the applicable or relevant standard, considering the reasons for not meeting that standard.

EPA also will use appropriate Federal public health and environmental criteria, advisories, and guidance and State standards in developing appropriate remedial alternatives. If the decision-maker determines that such

[1] These alternatives must be consistent with forthcoming guidance on "Procedures for Implementing CERCLA Delegations for Off-Site Response Actions." In some cases, off-site disposal or treatment may not be feasible and this alternative may be eliminated during initial screening of alternatives. The decision documents should reflect this screening.

[2] In determining whether a particular standard is applicable or relevant the decision-maker should refer to the attached list "Applicable or Relevant Requirements." For example, RCRA did not "contemplate" the regulation of the indiscriminant disposal of waste over 210 miles of roadway, or the contamination of a river bed with hazardous waste. In such situations, RCRA regulations would *not* be applicable per se, but on a case-by-case basis part of the regulation may be relevant.

standards, criteria, advisories or guidance are relevant, but are not used in the selected remedial alternative, the decision documents will indicate the basis for not using them.

For Fund-financed actions, where State standards are part of the cost-effective remedy, the Fund will pay to attain those standards. Where the cost-effective remedy does not include those State standards, the State may pay the difference to attain them.

3. *Administrative and Procedural Aspects.* The following modifications will be made to the Superfund community relations program to ensure that it provides a similar level of public involvement to that provided by the permitting programs of other environmental laws:

- A fact sheet should be included with the public notice and feasibility study which is provided to the public 2 weeks before the 3 week public comment period. The fact sheet will clearly summarize the feasibility study response alternatives and other issues, including which alternatives attain or exceed public health and environmental standards and criteria. For those alternatives that do not attain applicable and relevant standards of other public health and environmental laws, the fact sheet shall identify how they fail to attain the standards and explain how they nonetheless meet the goals of CERCLA. The public notice should include a timetable in which a decision will be reached, any tentative determinations which the Agency has made, the location where relevant documents can be obtained, identification of community involvement opportunities, the name of an Agency contact and other appropriate information.
- A public notice and updated fact sheet should be prepared upon (1) Agency selection of the final response action and (2) upon completion of the final engineering design. Prior to selecting the final engineering design, the Agency may hold a public meeting to inform the public of the design alternatives and solicit comments.
- If a remedy is identified that is different from those proposed during the feasibility study public comment period, a new 3 week public comment period may be required prior to amending the record of decision, taking into consideration the features of the alternatives addressed in the public comment period.

In addition, certain aspects of the CERCLA administrative process may be modified to assure comparability with the administrative requirements (i.e. recordkeeping, monitoring) of the other environmental programs.

The CERCLA enforcement community relations program will also be modified to provide for an enhanced public participation program for both consent decrees and administrative orders. This program will be substantially equivalent to the revised program for Fund-financed actions. Furthermore, consent decrees and administrative orders will incorporate administrative requirements (i.e. recordkeeping, monitoring) similar to those mandated by other environmental programs.

V. Applicability of Policy

This policy applies to three different situations:

- A site specific FS has not yet been initiated.
- The FS has been initiated, but the remedy has not yet been selected.
- The FS is completed and the remedy has been selected.

All sites where the FS has not yet been initiated must meet all of the requirements of this policy.

Where the FS has been initiated and the remedy has not yet been selected, the requirements of this policy do not apply to Record of Decisions (RODs) signed before March 1, 1985. RODs signed before March 1, 1985, should present to the decision-maker at least one alternative that attains or exceeds applicable or relevant standards and, if it is not selected should indicate the reasons why it was not selected.

Where the FS is complete and the remedy has been selected, the decision-maker may on a case-by-case basis revise the selected remedy.

If you have any questions or comments, please contact William N. Hedeman, Director, Office of Emergency and Remedial Response (FTS 382-2180) or Douglas Cohen of his Policy Analysis Staff (FTS 382-3044).

Attachment

Applicable or Relevant Requirements

1. Office of Solid Waste

- Open Dump Criteria (RCRA Subtitle D, 40 CFR Part 257)

Note.—Only relevant to nonhazardous wastes. In most situations Superfund wastes will be handled in accordance with RCRA Subtitle C requirements.

- Hazardous Waste Regulations (RCRA Subtitle C, 40 CFR Part 264) including liner, cap, groundwater, and closure requirements under the following subparts:

F. Ground-Water Protection
G. Closure and Post Closure
H. Containers
I. Tanks
J. Surface Impoundments
K. Waste Piles
L. Land Treatment
M. Landfills
N. Incinerators

2. Office of Water

- Maximum Contaminant Levels (for all sources of drinking water exposure).
- Underground Injection Control Regulations.
- State Water Quality Standards (apply for surface water discharge).
- Requirements established pursuant to section 301 and section 403(c) of the Clean Water Act.
- Ocean Dumping Requirements including incineration at sea.
- Pretreatment standards for discharge into a publicly owned treatment works.

3. Office of Pesticides and Toxic Substances

- "PCB Requirements including Disposal and Marking Rule (43 FR 7150, 2-17-78); PCB Ban Rule (44 FR 31514, 5-31-79) PCB Electrical Equipment Rule (47 FR 37342, August 25, 1982); Uncontrolled PCBs Rule (49 FR 28172, July 10, 1984) and other related rulemakings."
- 40 CFR 775 Subpart J—Disposal of Waste Material Containing TCDD.

4. Office of External Affairs

- Guidelines for Specification of Disposal Sites for Dredged or Fill Material (section 404(b)(1) Guidelines, 40 CFR Part 230).
- Denial or Restriction of Disposal Site for Dredged Material: Final rule (section 404(c)).

5. Office of Air and Radiation

- Uranium mill tailing rules.
- National Ambient Air Quality Standards.
- High and low level radioactive waste rule.
- Asbestos disposal rules.

6. Other Federal Requirements

- OSHA requirements.
- Preservation of scientific, historical or archaeological data.
- D.O.T. Hazardous Materials Transport Rules.
- Regulation of activities in or affecting waters of the United States pursuant to 33 CFR 320-329.
- The following requirements are triggered by fund-financed actions:

—Preservation of rivers on the national inventory, Wild and Scenic Rivers Act, section 40 CFR 6.302(e).
—Protection of threatened or endangered species and their habitats.

—Conservation or Wildlife Resources.
—Executive Orders related to Floodplains (11988) and Wetlands (11990).
—Coastal Zone Management Act.

Other Requirements, Advisories and Guidance To Be Considered

1. Federal Requirements, Advisories and Procedures

- Recommended Maximum Concentration Limits (RMCLs).
- Health Advisories, EPA, Office of Water.
- Federal Water Quality Criteria.

Note.—Federal water quality criteria are not legally enforceable. State water quality standards, developed using appropriate aspects of Federal water quality criteria, are legally enforceable. In many cases, States water quality standards do not include specific numerical limitations on a large number of priority pollutants. When there are no numerical state standards for a given pollutant, Federal water quality criteria should be considered.

- Pesticide and Food additive tolerances and action levels data.

Note.—Germane portions of tolerances and action levels may be relevant in certain situations.

- Waste load allocation procedures, EPA Office of Water.
- Federal Sole Source Aquifer requirements.
- Public health basis in listing decisions under sec. 112 of the Clean Air Act.
- EPA's groundwater protection strategy.
- New Source Performance Standards for Storage Vessels for Petroleum Liquids.
- TSCA health data.
- Pesticide registration data.
- TSCA chemical advisories (2 or 3 issued to date).
- Advisories issued by FWS and NWFS under the Fish and Wildlife Coordination Act.
- National Environmental Policy Act.
- Floodplain and Wetlands Executive Orders.
- TSCA Compliance Program Policy.

2. State Requirements

- State Requirements on Disposal and Transport of Radioactive wastes.
- State Approval of Water Supply System Additions or Developments.
- State Ground Water Withdrawal Approvals.
- Requirements of authorized (Subtitle C of RCRA) State hazardous waste programs.
- State Implementation Plans and Delegated Programs Under Clean Air Act.
- All other State requirements, not delegated through EPA authority.

Note.—Many other State and local requirements could be relevant. The guidance for feasibility studies will include a more comprehensive list.

3. USEPA RCRA Guidance Documents

A. EPA's RCRA Design Guidelines

(1) Surface Impoundments, Liners Systems, Final Cover and Freeboard Control.
(2) Waste Pile Design—Liner Systems.
(3) Land Treatment Units.
(4) Landfill Design—Liner Systems and Final Cover.

B. Permitting Guidance Manuals

(1) Permit Applicant's Guidance Manual of Hazardous Waste Land Treatment, Storage, Disposal Facilities.
(2) Permit Writer's Guidance Manual for Hazardous Waste Land Treatment, Storage, Disposal Facilities.
(3) Permit Writer's Guidance Manual for Subpart F.
(4) Permit Applicants Guidance Manual for the General Facility Standards.
(5) Waste Analysis Plan Guidance Manual.
(6) Permit Writer's Guidance Manual for Hazardous Waste Tanks.
(7) Model Permit Application for Existing Incinerators.
(8) Guidance Manual for Evaluating Permit Applications for the Operation of Hazardous Waste Incinerator Units.
(9) A Guide for Preparing RCRA Permit Applications for Existing Storage Facilities.
(10) Guidance Manual on closure and post-closure Interim Status Standards.

C. Technical Resource Documents (TRDs)

(1) Evaluating Cover Systems for Solid and Hazardous Waste.
(2) Hydrologic Simulation of Solid Waste Disposal Sites.
(3) Landfill and Surface Impoundment Performance Evaluation.
(4) Lining of Water Impoundment and Disposal Facilities.
(5) Management of Hazardous Waste Leachate.
(6) Guide to the Disposal of Chemically Stabilized and Solidified Waste.
(7) Closure of Hazardous Waste Surface Impoundments.
(8) Hazardous Waste Land Treatment.
(9) Soil Properties, Classification, and Hydraulic Conductivity Testing.

D. Test Methods for Evaluating Solid Waste

(1) Solid Waste Leaching Procedure Manual.
(2) Methods for the Prediction of Leachate Plume Migration and Mixing.
(3) Hydrologic Evaluation of Landfill Performance (HELP) Model Hydrologic Simulation on Solid Waste Disposal Sites.
(4) Procedures for Modeling Flow Through Clay Liners.
(5) Test Methods for Evaluating Solid Wastes.
(6) A Method for Determining the Compatibility of Hazardous Wastes.
(7) Guidance Manual on Hazardous Waste Compatibility.

4. USEPA Office of Water Guidance Documents

A. Pretreatment Guidance Documents

(1) 304(g) Guidance Document Revised Pretreatment Guidelines (3 Volumes).
Provides technical data describing priority pollutants and their effects on wastewater treatment processes to be used in developing local limits; describes technologies applicable to categorical industries.

B. Water Quality Guidance Documents

(1) Ecological Evaluation of Proposed Discharge of Dredged Material into Ocean Waters (1977).
(2) Technical Support Manual: Waterbody Surveys and Assessments for Conducting Use Attainability Analyses (1983).
Outlines methods for conducting use attainability analyses under the Clean Water Act.
(3) Water-Related Environmental Fat of 129 Priority Pollutants (1979).
Describe the transformation and transportation of priority pollutants.
(4) Water Quality Standards Handbook (1983).
Provides an overview of the Criteria Standards Program under the Clean Water Act and outlines methods for conducting criteria standards modification.
(5) Technical Support Document for Water Quality-based Toxics Control.

C. NPDES Guidance Documents

(1) NPDES Best Management Practi Guidance Manual (June 1981).
Provides a protocol for evaluating BMPs for controlling discharges of to and hazardous substances to receivin waters.
(2) Biomonitoring Guidance, July 19 subsequent biomonitoring policy statements, and case studies on toxic reduction evaluation (May 1983).

D. Ground Water/UIC Guidance Document

(1) Designation of a USDW.
(2) Elements of Aquifer Identificat